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ABSTRACT

The extent to which vocational education and training policy is nurturing lifelong learning in Finland was examined. The analysis focused on the following issues: the political and structural framework of education in Finland; mechanisms supporting lifelong learning; and pedagogical solutions and learning environments facilitating lifelong learning. The following were among the major conclusions: (1) during the 1990s, lifelong learning became a central part of Finland's educational policy discourse; (2) commitment to implementing lifelong learning in Finland is strong; (3) lifelong learning has genuinely become an integral part of all levels of Finland's education system; (4) Finnish education planning has invested heavily in planning personal study plans; (5) strong decentralization has been a general trend since the 1990s; (6) in recent years, investments have

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also been made in developing cooperation between educational institutions; (7) access to lifelong learning and learning outcomes have been inferior in rural areas; and (8) the basis of lifelong learning in Finland is in line with the objectives set by the European Union. (Ten tables/figures are included. The following items are appended: a list of 15 pertinent legal provisions; a glossary of acronyms/abbreviations and terms; and the questionnaire and selected findings of a lifelong learning survey. The bibliography lists 42 references.) (MN)

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PANORAMA

Lifelong learning in Finland

The extent to which vocational education and training policy is nurturing lifelong learning in Finland

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Lifelong learning in Finland

The extent to which vocational education and training policy is nurturing lifelong learning in Finland

Kari Nyyssölä
Kimmo Hämäläinen

Cedefop Panorama series

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Foreword

The European year of lifelong learning was 1996, which brought much awareness and promotion of 'lifelong learning for all'. This was also the title of an influential OECD publication in the same year. Since then, lifelong learning has been in prominence on most education and training policy and conference agendas in Europe and has generated much debate. There has also been scope to put some of the theory into practice. Cedefop is setting up a reporting system on developments in lifelong learning in the Electronic Training Village (www.trainingvillage.gr), to monitor progress.

The reporting system will concentrate on delivering up-to-date information on developments, initiatives and research. In addition, there will be reports on the implementation of lifelong learning in systems of vocational education and training (VET) in selected countries. In summer 2000, studies were launched on the extent to which vocational education and training policies and actions nurture lifelong learning in four countries, Finland, Italy, the Netherlands, and Sweden.

Developing a 'system' that supports lifelong learning implies establishing links between a number of highly diversified learning areas, thus opening up opportunities for combinations and synergies not possible in one institutional setting. If supportive policies are being seriously implemented, there must be some evidence that learning is starting to spread over the lifespan. Learning that takes place intentionally and unintentionally at work, at home or during leisure-time, must be acknowledged for its worth, both to the individual and to the organisation. Policies should respond to the biggest challenge of giving all people a fair chance, and equal opportunities and access to learning throughout their lives, and not allow lifelong learning to become a mechanism that 'reproduces inequalities'.

This report assesses the extent to which lifelong learning strategies are being implemented in VET in Finland. It examines implementation and results achieved from a number of angles: the specific national context being addressed by policy, as well as its focus; the learning areas and structures implicated; the instruments and pedagogical methods used; the actors involved.

With publication of its *Memorandum on lifelong learning* (2000), the European Commission again placed this issue among its priorities. Cedefop is fully aware that vocational education and training is merely one facet of lifelong learning, which according to the memorandum has become the guiding principle for provision and participation in all learning contexts. Nevertheless, we hope this report will make a useful contribution to the debate and consultation process launched in the Member States as a follow-up to the memorandum.

We would like to thank Kari Nyyssölä, Kimmo Hämäläinen, and the team at the National Board of Education, who prepared the report.

Stavros Stavrou
Deputy Director

Martina Ní Cheallaigh
Project Manager

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Preface by the authors

This report provides a description of the key principles of lifelong learning in Finland and describes their implementation in the Finnish VET system but also at other levels of education. It details the arrangements to support lifelong learning, the participants, the pedagogical solutions and the learning environments. It also includes a detailed description and evaluation of the sources.

The levels of education in Finland are as follows:

(a) pre-primary education;
(b) basic education (primary education and lower secondary education);
(c) upper secondary education:
    (i) general upper secondary education,
    (ii) vocational education and training;
(d) higher education:
    (i) polytechnic education,
    (ii) university education;
(e) adult education and training.

The analysis is based on current knowledge and most up-to-date data possible. A strong emphasis has been on a practical, critical and objective approach while preparing this report.

The data contains documents, statistics and previous studies. They include as follows:

(a) documents:

- educational strategy papers,
- instructions and references,
- national core curricula,
- official websites (Ministry of Education, Ministry of Labour);

(b) statistics:

- official educational statistics,
- quantitative clarifications about lifelong learning;

(c) previous studies and evaluation reports about lifelong learning, concerning:

- strategy,
- implementation,
- effectiveness,
- pedagogical methods,
- individual perspectives.

This report has been drafted by a group of experts from the National Board of Education. The experts have each written about their own area of expertise. Kari Nyyssölä and Kimmo Hämäläinen have combined the reports and edited them in order to produce a coherent final report. The contributors were asked to follow the structure and guidelines outlined below:

(a) introduction: description of aims and actions;

(b) evaluation of the implementation of actions (quantity, comprehensiveness, etc.); impact assessment and a critical evaluation of weaknesses in the implementation process. Supporting data should be included. If the information is based on individual examples or field experiences, that should also be mentioned. The reliability of the support was to be considered during the evaluation;
(c) conclusion of results and future prospects.

The aim was that the views should generally be supported by statistical data. However, in many cases, no such data is available, and it is therefore necessary to rely on the experience and knowledge of the experts. Objectivity and a critical approach have been the basic principles of all contributors.

The following persons at the National Board of Education gave their valuable contribution to the contents of this report:

Martti Apajalahti	Meri Kaila-Sayeed	Matti Kyrö	Petri Pohjonen
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As planned, a survey on training committees was also conducted. The purpose of the survey was to gain more information on ways of realising lifelong learning. Training committees are tripartite and thus represent the main participants in Finnish education policy. The survey was also sent to representatives of labour market organisations and labour administration. The survey was ultimately sent to 18 people. Six of these were representatives of training committees, eight represented labour marker organisations and four labour administration. We received eight replies from the following parties:

Finnish Teachers' Association (OAJ), Confederation of Finnish Industry and Employers (TT), Confederation of Unions for Academic Professionals in Finland (AKAVA), Ministry of Labour (*Työministeriö*), Services Employers' Confederation (*Palvelutyönantajat*), Training Committee of Natural Resources and Environment Sector (*Luonnonvara- ja ympäristöalan koulutustoimikunta*), Training Committee of Social and Health Sector (*Sosiaali- ja terveysalan koulutustoimikunta*).

Although not many replies were received, they include important information relevant to this report. The survey is used as additional source material in the analysis. It is not directly referred to, but it has illuminated the views and interpretations presented in the report. The questions covered in the survey and thus the summary of the analysis are included as an appendix to this report.

Kari Nyyssölä
Kimmo Hämäläinen

National Board of Education

1. Political and structural framework

1.1. The basis of education policy in Finland

A central objective of Finnish education policy is to provide all citizens with equal opportunities to receive education irrespective of age, domicile, sex, mother tongue and economic situation. The right to free basic education for all residents of Finland – and not just for Finnish citizens – is guaranteed by statutes.

In addition, everyone has the right to post-basic education and the Finnish education system gives everyone access to upper secondary education or higher education. General education alone is not regarded as being sufficient.

The concept of lifelong learning reflects the whole national education system, because it covers peoples' lives from early childhood to old age. Lifelong learning takes place both in official learning environments, such as schools, and also less officially through the Internet and as on-the-job learning.

The education system promotes implementation of the principles of lifelong learning by giving young people a high level of education and, at the same time, the ability to participate in continuing education later in life. Additionally, the education system in Finland supports the education needs of adults so they may participate easily in versatile continuing education, which will be useful in their working lives.

1.2. The Finnish education system in brief

In 1999, there were 591 300 children of compulsory school age. Most comprehensive schools are maintained by municipalities or federations of municipalities.

According to the decentralisation principle, municipalities have extensive self-governing powers and, as the principal education provider, they have a central role in the effectiveness of the Finnish education system. Local municipal authorities decide on the extent to which they distribute decision-making on educational matters to schools in their region, but schools have the right to arrange their own administration and education services as long as the statutory tasks of the educational sector are realised.

In Finland, children aged six or under are entitled to pre-primary education, which is provided at day-care centres or in private family day-care. From 2001 onwards, all six-year-olds will have the right to pre-school education free of charge.

All pupils attend comprehensive school and this lasts nine years. Most children start at school in the year of their seventh birthday. About 1% start a year earlier but a certificate must be

obtained to prove the child's readiness to attend school. Municipalities arrange a place for each pupil at a school located close to their homes.

The National Board of Education prepares the national core curricula for primary and secondary education which include the objectives and contents of the different subjects as well as assessment criteria. Local education authorities and schools prepare the local basic education curricula based on the national core curricula. The local curriculum may be either municipal or institution-specific.

Completion of the basic education syllabus provides eligibility for all upper secondary education, that is, general upper secondary education and vocational education, and qualifies students to apply for any institutions that provide upper secondary education. Applications usually take place through the national joint application procedure. Completion of general upper secondary education takes between two and four years and it takes two to three years to obtain the upper secondary level vocational qualification.

Higher education is provided at universities and polytechnics. Universities specialise in scientific research and polytechnics provide instruction for expert functions in working life. The Finnish matriculation examination provides eligibility for higher education and institutions of higher education generally select their students independently. Studies leading to a university degree may be 120 credit Bachelor's degrees, 160 to 180 credit Master's degrees or scientific post-graduate degrees, which are licentiates and doctorates. Studies leading to a higher academic degree at polytechnics are made up of 140–180 credits.

Higher education will be further developed by increasing the annual intake quota at institutes of higher education to give student places at universities or polytechnics to the majority of the relevant age group.

Adult education is organised in more than 1 000 institutions. Only some of these provide exclusively adult education, whereas the majority offer instruction for both young people and adults. Adult education is provided at universities and polytechnics, vocational institutions, vocational adult education centres and special institutions, adult education centres and workers' institutes, folk high schools and summer universities, upper secondary schools for adults, study centres, physical education centres and music institutions. A special form of adult education is adult employment training, where the employment administration provides unemployed people and those at risk of unemployment with courses purchased from institutions, mainly preparing for certain occupations.

Most teachers in Finland are civil servants and are employed by municipalities or the State.

1.3. Principles of the Finnish concept of lifelong learning

1.3.1. Background

The Finnish Government decides every four years on **the development plan for education and university research**. The current plan covers the years 1999–2004 and, in it, the concept of lifelong learning is declared to be one of the main principles underlying the development of Finnish education. This prospect will mean that education is identified less with formal institutional activity and is seen increasingly as a process covering all ages, forms of learning, and learning environments. The contribution of lifelong learning to the enrichment of life in a more personal, less career-oriented sense is no less important.

The current development plan for 1999–2004 was approved by the government in December 1999. Its specific aims reflect the above-mentioned challenges and are geared to improving the following in terms of lifelong learning: the basic educational level of young people in the transition from school to working life; the basic educational level of the middle-aged; learning ability at all ages; learning opportunities available to senior citizens; formal recognition of skills and knowledge obtained outside education institutions; educational information and counselling; the criteria for funding education institutions; and the enhancement of teaching skills. The plan includes a special section on lifelong learning and, in addition, the principle of lifelong learning is a basis for several actions.

The content of the principle of lifelong learning has been defined in the plan as follows: high standard of education, learning skills, and ensuring an adequate amount of chances and implementation methods of the continuous learning of the adult population. This definition is regarded as the central educational goal for the entire population. The development of learning skills will be emphasised as one of the most important goals in all educational sectors. The new plan also encourages the appreciation and promotion of learning outside educational institutions. Experiences with the previous development plan for education and university research prove that most objectives stated in it will be realised in one form or another.

In order to achieve the goals of lifelong learning in practical terms, it is necessary to obtain adequate and comprehensive information about all the possibilities of studying and the financing of studies.

Another important government plan which takes the principle of lifelong learning into account, is the **national strategy for education, training and research in the information society**. The strategy was first completed in 1995 and it outlined the information and communication policy for education, training and research well into the 21st century. The strategy contained the opinions and proposals of an expert committee set up by the Ministry of Education on how the level of education and research can be raised by applying information technology, thus promoting national competitiveness and employment, and how to promote the availability and use of information and to assess the needs and identify the

means for giving citizens basic skills in using information and communication technologies (ICTs).

The aims of the strategy were implemented through the **information society programme** (1995-99) of the Ministry of Education. Almost FIM 1 billion (EUR 167 million) of earmarked budget funding was used to this end.

The new **national strategy for education, training and research in the information society** for the years 2000–04 was launched by the Ministry of Education in December 1999. The strategy states that, by the year 2004, Finland will be one of the leading knowledge and interactive societies. Success will be based on citizens' equal opportunities to study and develop their own knowledge and extensively utilise information resources and educational services. A high-quality, ethically and economically sustainable mode of operation in network-based teaching and research will be established. New demands for knowledge require the rapid and extensive application of the principle of lifelong learning to the entire educational system in order to motivate and teach the population to manage, analyse, evaluate and refine the increasing flow of information and thus utilise the opportunities offered by technology. The growing competence requirements of the information society will be met by systematically developing the prerequisites of lifelong learning.

On the initiative of the government, the Ministry of Education introduced a national strategy for lifelong learning (**'the joy of learning'**, 1997). In it, the concept of lifelong learning covers not only individuals but the communities where they live and work as well as the underlying societal parameters that determine their operational environment. This kind of approach is necessary to facilitate a broadly based and continuous process of learning.

1.3.2. Finnish trends in lifelong learning

The rapid development of the information society both requires and facilitates an increase in the knowledge level of the nation as a whole. This is why the steering effect of education on development cannot be left to the basic education of the population only. From the viewpoint of working life and the citizens' society, it is necessary to steer educational input increasingly to the adult population and to build the support structures of educational provision and learning to extend throughout life. Because of the rapid development, lifelong learning is an essential element of the new strategy. The development of ICTs is rapidly changing occupational structures and job descriptions. At the same time, previously separate learning environments, the home, the school, and the workplace, are merging into lifelong learning that covers the entire life-span of people and various fields of life. Media literacy, information and communications technology skills and the utilisation of opportunities will be included in the lifelong learning programmes.

The formal education system contributes to lifelong learning by educating young people to a high level, and providing them with the skills to engage in continuous learning, as a result of which they can anticipate and adapt to required changes in qualifications. The system also has

to boost opportunities for all adults to benefit from education and training and improve their learning skills. This approach is a natural consequence of modern society in which the global integration of national economies, fast development of ICTs, and the ageing of the population are all affecting the need to learn.

1.3.3. Reaching the aims of lifelong learning

The officially defined aims of lifelong learning can be divided into ten themes groups. The themes are presented below, followed by a brief evaluation of how the aims have been attained.

1.3.3.1. Taking into account all age groups

Educational differences between different age groups are relatively high in Finland. The educational level of young people, in particular, is good. About 83% of 30 to 34 year-olds have at least upper secondary education (80% of men and 86% of women), while about 40% of the baby boom generation (50 to 54 year-olds) have no vocational training. Women are more highly educated than men in all age groups.

Young people are thus well taken care of, but there is still much work to be done to raise the educational level of older age groups. Older age groups actively participate in adult education schemes, but the problem is that training activity seems to accumulate: the most active adult students are those who already have a good basic education. Those with a less satisfactory basic education are not so keen to take part in adult education. Senior citizens are also at risk of being excluded from lifelong learning, although their activity in the sphere of adult education is clearly growing.

1.3.3.2. Formal recognition of skills and knowledge obtained outside educational institutions

In addition to formal adult education, opportunities for the recognition of non-formal learning on the basis of competence-based qualifications have emerged. The non-formal nature of competence-based qualifications is obscured by the fact that the competence-based qualification is only obtained after a formal training period in most cases. Furthermore, skills and knowledge obtained in leisure-time activities or at home are not usually accredited in the sphere of formal education.

The vocational education of young people has traditionally been school-based. However, extended on-the-job training periods have brought greater non-formality to vocational education.

1.3.3.3. Enlargement of learning environments

Development of opportunities for distance-learning and virtual environments has been emphasised in the Finnish educational system. The main aim has been to improve the learning

opportunities of adults and to safeguard regional equality in terms of learning opportunities. Distance-learning has been developed particularly within adult education (distance general upper secondary schools). In vocational education, distance learning is being developed in the form of net pedagogy and virtual schools. Those involved in vocational education can also benefit from courses at distance general upper secondary schools.

Generally, the significance of new learning environments has increased and they are an essential part of educational development. However, it is too early to evaluate the importance of the new learning environments in the sphere of education.

1.3.3.4. Development of guidance and counselling

According to curricula, pupils and students should be sufficiently guided and counselled in terms of education at all educational levels. According to evaluation reports, this aim has been attained quite well. The problems lie in differences concerning the availability of counselling services at different educational institutions and the lack of time reserved for counselling. Additionally, counsellors working at comprehensive schools and upper secondary schools should be better informed about the opportunities offered by vocational education.

In order to facilitate entry into working life and further education, recruitment and career services have been established at educational institutions. Due to insufficient resources, these services have not yet taken off satisfactorily.

Guidance and counselling measures are supported by centralised, net-based student selection systems, which facilitate the collection of information on available educational schemes.

1.3.3.5. On-the-job learning

On-the-job learning has become an important target for educational development. In the 1990s, the capability of the vocational education system to meet the needs of a changing workplace was brought into question in Finland. Among the problems encountered were the lack of correspondence between qualifications obtained through training and the expectations of the workplace, the lack of cooperation between education and the working life, the poor tradition of entrepreneurship, and the complication of the transition from education to the work.

Indeed, in the 1990s, the Finnish educational system enhanced its on-the-job learning strategy, whose core manifestations are the development of a competence-based qualification system, reinforcement of the position of on-the-job learning periods in vocational education and the expansion of apprenticeship training. For example, the number of persons participating in apprenticeships multiplied in Finland during the 1990s, even though the percentage of apprenticeships among all persons participating in a vocational education is still quite low. The problem is also that much of the increase in apprenticeships is due to additional vocational training in the form of apprenticeships, where participants are usually

adults, whereas the increase in initial apprenticeship training for young people has not been as strong.

Another critical point is the readiness of small and medium-sized enterprises (SMEs) to participate in arranging on-the-job training.

In general, Finland is in transition towards a less institute-based instruction. The role of educational institutions will, however, remain important.

1.3.3.6. Financing systems are being reorganised in order to promote results-oriented education

The Finnish educational system follows the Nordic welfare society model, where education is public and financed with public funds. According to OECD statistics, Finland is among the leading countries in terms of expenditure on education, although cuts in public spending in the 1990s meant that we fell a few positions in the ranking list.

Upper secondary level educational institutions, polytechnics and universities compete for clients of further education and supplementary training. The client usually has to pay for further education, whether the client is a company, organisation or individual. There are several private institutions operating in the commercial training market.

From an economic point of view, it is problematic that the public financial support allocated (by the State or, to some extent, by the municipalities) to further education and supplementary training on different grounds and in different amounts, distorts competition between education providers. The reform of the funding of further education aims to alleviate this problem.

In general, the structural, institutional and financial basis of the Finnish education system and adult education is versatile and strong and provides a good foundation for lifelong learning.

1.3.3.7. Improvement of teaching skills

The Opepro project, which charted the qualitative and quantitative needs of teachers in basic and further education, has been important in terms of the development of teachers' professional skills, particularly for teachers in vocational institutions, because they are facing new challenges: teachers are expected to be actively involved in cooperation between education and working life. Companies' attitudes to initiatives and contacts made by school representatives are usually quite positive and companies value these contacts. Teachers are also expected to contribute to planning on-the-job training periods, the institution's marketing efforts and the assessments of on-the-job training periods. These expectations are justified because, according to several studies, educational institutions and teachers often have inadequate knowledge about working life and businesses operating in the surrounding area (Luukkainen, 2000).

The competence level of teachers in comprehensive and upper secondary schools is quite good, although about 1 500 teachers paid by the hour do not have the appropriate degree for their job (Luukkainen, 2000).

Although the role of the teacher is increasingly becoming a role as a student counsellor or a planner of educational environments (so-called 'renewal of teaching profession'), there have been no dramatic changes in the role of the teacher so far. The role is changing, but the process takes time and requires support.

1.3.3.8. Aiming at high-quality education

High-quality education is being pursued through national and international evaluations and development projects. A fairly comprehensive evaluation system has been developed in Finland.

1.3.3.9. Development of learning skills

Learning skills are basic prerequisites for lifelong learning. The development of learning skills is a cornerstone for all curricula. However, according to different evaluations, there are significant regional, gender-related and school-related differences in learning skills.

1.3.3.10. Ensuring flexibility and optionality

Flexible studying opportunities, accreditation of previous studies and the opportunity to select subjects according to personal interests increase the motivation for and the commitment to lifelong learning. Flexibility and options are applied at all grades. The size of educational institutions and regional differences set some limits to the variety of options, however.

1.3.3.11. Responding to the challenges of the information society

The objective of the Finnish information society is that all citizens should have equal opportunities to obtain the skills they need in the information society. In general, the technical resources (network connections, etc.) are good at workplaces and schools. Lately, however, a fear has been voiced that some parts of the population (particularly those with a low education and from older age groups) will become the 'have-nots' in terms of IT services.

1.4. Problems in the transition between basic and upper secondary level education and in providing equal study opportunities

Long into the 1990s, the education planning system in Finland was a centralised multilevel system based on anticipation of educational needs. In the latter half of the 1990s, centralised

planning gave way to increases in responsibility and decision-making at local and regional levels. Renewal of the planning process has made it possible to take the requirements of rapidly changing working life into account when directing education and when changing the focus of education contents more flexibly.

In 1999, an overall reform of educational legislation came into force. It obligated educational institutions to cooperate across forms of education, which provides individual students with more choice. Furthermore, decentralisation of administrative decision-making provides more scope for choice and flexibility.

Upon completion of studies at compulsory level, students apply to upper secondary school through the national joint applications procedure. In principle, all young people are given student places. However, some are admitted to study programmes that would not have been their first choice. This is the biggest problem in the transition between education at basic level and at upper secondary level. Not everyone is admitted to their preferred field of education and, in such cases, the motivation to study is not high and the dropout rate is around 10%. In practical terms, the level of young people in Finland attending education is very high compared with other countries. More than 90% of young people seek to go into further education and approximately 90% of these start their studies. Approximately 35% of students completing comprehensive school start vocational education.

In principle, all young people completing compulsory education may start upper secondary level education. In Finland, failure to continue after compulsory education is mostly interpreted as a possible threat of exclusion, and comprehensive schools therefore try to ensure that students do seek to go on to further education.

Since 1995, as a measure of an active labour policy, a system was created, which directs young people into education instead of passive unemployment. This was realised in such a way that the granting of labour market subsidy was connected to whether the person seeks to go on to further education or not. Labour market support is meant for unemployed jobseekers, who are not entitled to unemployment allowance. If an 18 to 24-year-old person rejects a position offered or refuses, resigns or does not seek to go into vocational training that would be appropriate to the person, labour market support is denied. This system has increased the relative number of students, but on the other hand it has aggravated the exclusion of those young people, who are not willing to study even if it means that they lose their labour market support. Another problem with the system is that the number of poorly motivated students has increased in vocational institutions.

1.5. Learning to learn in pre-primary and primary education

The objective of basic education is to support the social development of pupils and to promote their development into ethically responsible members of society, and to provide students with the skills and knowledge that they will need in everyday life. Education should promote

culture and equality in society and increase pupils' chances to participate in education and to support lifelong personal development. Primary education should provide a foundation for further education at secondary level.

A framework curriculum for the comprehensive school was completed in 1994. The concept of learning adopted in the curriculum has provided an opportunity to promote lifelong learning. According to this concept of learning, students play an active role in organising the information structures. This also includes the concept of 'new teachership', where the role of the teacher is to provide educational guidance and to plan learning environments.

The gradual task of reforming basic education started from pre-primary education in the year 2000. The pilot version of the framework curriculum for pre-primary education, which was completed in May 2000, sets the direction for the whole reform. It puts more emphasis on promoting general preconditions for learning, the significance of teaching individual pieces of information and individual skills to provide tools for more profound 'learning to learn'. In order to take the individual needs of children into account, the pilot curriculum states that it is feasible to prepare a pre-primary education curriculum for children to secure the best possible conditions for growing and learning.

At the beginning of the 1990s, when curricula for schools were being prepared, researchers at the University of East Anglia evaluated comprehensive school reform by observing teaching in 16 comprehensive schools (Nigel Norris et al., 1996). The researchers found that teaching was very teacher-oriented and textbook-oriented, but they commended the teachers' efforts in developing their teaching methods. Measures to support teachers' lifelong learning plans include, among other things, cooperative student groups (i.e. those with an emphasis on cooperative learning), self-directed learning, resource-based teaching (creating versatile learning environments) and problem solving.

The principle of 'learning to learn' is an integral part of lifelong learning. A significant research project on the subject was completed in 1999 (Hautamäki et al., 1999). It states that readiness for learning to learn is central to lifelong learning. There are significant differences in capacity between regions, sexes, individuals and schools. Girls are clearly more ready to learn than boys. The most important factor between individuals is the parents' level of education and the education level of the mother in particular shows in the readiness of children to learn to learn. Regional differences are also considerable, which partly reflects the education level of the parents: children in northern Finland are less ready. There are also differences between schools, particularly between small schools, which shows that teachers and school culture have an influence on learning to learn.

1.6. Flexibility in secondary education

1.6.1. Flexibility and options at general upper secondary schools

General upper secondary education continues and deepens the educational task of basic education. Additionally, it gives students eligibility for all forms of higher education and working life and supports students' ability for lifelong learning and self-improvement.

In the 1990s, more options and individual choices have been added to general upper secondary education. The minimum number of courses to be completed is 75, of which 45 to 49 are compulsory courses. In general upper secondary education for adult students, the minimum number of courses is 44, of which 32 to 36 are compulsory. The order of taking the courses is only partially fixed and students can decide the overall number of hours in each period (year classes have been abolished and schools function without fixed forms), but, in small general upper secondary schools, the system does not allow for an extensive range of choices.

The objective is to secure equal opportunities for general upper secondary education regardless of domicile. The school network that consists of approximately 450 general upper secondary schools for young people and over 50 general upper secondary schools for adult students is regionally quite extensive. However, declining young population and movement to populated areas threaten the existence of many small general upper secondary schools and certainly diminish their capacity to function.

The results of the matriculation examination, which measures the knowledge and analysis skills of students, do not show any significant differences between regions, and the differences that do exist can usually be explained by underlying factors such as the region's general educational level (the educational level of the parents), student's gender; the language spoken at home or geographical location.

The new school legislation obliges regional education providers to cooperate with each other and obliges schools to prepare curricula that provide students with individual choices and enable the use of instruction offered by other education providers. The optimal result of this cooperation between educational institutions has been the possibility to study for two different qualifications simultaneously. As a result, it has been possible to combine general upper secondary education with vocational courses and vice versa.

The development of cooperation between general upper secondary schools, polytechnics and universities is underway. The objective is to create a system to enable students to take studies that can lead to higher education qualifications even during their general upper secondary education. Currently about 40% of general upper secondary schools cooperate in this way with institutions of higher education. Cooperation works best in university towns and nearby.

1.6.2. Flexibility and options in vocational upper secondary education

1.6.2.1. Definition

Flexibility refers to the modular structure of qualifications, which facilitates the completion of qualifications. In addition, flexibility means that slow and fast students may proceed according to their own personal study plans and they may, to a certain extent, select the order of study modules. This is enabled by a periodic workplan, where studies are no longer connected to year classes. Flexible systems require thorough joint planning of educational supply between different educational institutions and effective educational guidance.

Increasing the range of choices means that students may select optional subjects according to their own personal interests. Optional subjects may include on-the-job training or education abroad.

1.6.2.2. National regulations

Since 1995, 40% of common core subjects have been optional in all basic qualifications (two to three years). In the core curriculum for 1999–2001, 20% (four credits) of common subjects are optional. Students may select these from a range of 15 subjects. Common core subjects can also be studied at general upper secondary schools.

In two-year initial vocational qualifications, the amount of free-choice studies is five credits, and in three-year initial vocational qualifications 10 credits. Free-choice studies include vocational or general studies within the student's own educational sector or within other sectors, studies that prepare for further education or the matriculation examination, work experience or guided extra-curricular activities, which support the general educational or occupational aims and the development of the student's personality. Free-choice studies are individual choices made by students and included in their personal study plans.

Vocational education includes optional subjects too. The core curricula for 1995 and 1999–2001 both include optional vocational subjects. The education provider may define studies worth up to 10 credits according to local or regional needs. The provider may also define advanced vocational studies. These studies may also be common studies or general upper secondary education.

1.6.2.3. Realisation of flexibility and a range of choices

National legislation and pilot projects have supported the development of flexible and individual study methods. Flexibility in upper secondary vocational education has increased, as educational institutions have adopted 'form-free' (not tied to year classes) periodic scheduling and mutual planning of curricula. Cooperation with working life has led to new flexible study methods, which have been tested in flexible study structure pilot projects and later on in on-the-job training pilot periods and other development projects. Cooperation with

general upper secondary schools has increased the number of people combining studies related to an initial vocational qualification and general upper secondary studies, or simultaneous accomplishment of the initial vocational qualification and the matriculation examination.

The range of available options and the choices made by students are different in small and large educational institutions. According to the follow-up study on curriculum reform, the most significant factors limiting the range of choices are schedules, money, distances between institutions, lack of premises and teachers and small group sizes. Students tend to choose advanced vocational studies and extensive options (Stenström, 1997). A new follow-up study on the implementation of the national core curricula will be made in the near future. The opportunity to carry out studies required for a qualification in a flexible way, the accreditation of previous studies and the inclusion of personal interests in the personal study plans promote lifelong learning and increase motivation in vocational upper secondary education. The aim of flexible educational solutions and options is to strengthen the self-esteem and positive self-assessment of as many students as possible, and to increase their motivation, when they move on in their lives.

1.7. Individualised services in vocational education

1.7.1. The realisation of the principles of lifelong learning in learning and teaching in vocational education

The background of the reform of core curricula and qualification guidelines includes the concepts of information and learning. Vocational skills are an integrated whole made up of vocational theory and practical skills. They are realised in smooth working operations, practical skills and problem-solving ability at work situations. The current concept of learning emphasises the active role of students in organising information and skills structures, processing and retrieving information and assessing it. Students themselves shape the outcome of their learning and take responsibility for it. The principles of lifelong learning emphasise the very same themes.

Core curriculum and qualifications guidelines for initial vocational qualifications communicate the core skills that are common to all fields of study. The objective is for students to develop the skills they will need in all fields of study. These include learning skills, problem-solving skills, interactive and communication skills, cooperation skills as well as ethical and aesthetic skills. All these promote lifelong learning and emphasise students' responsibility for retrieving, processing, using and evaluating information. School curricula in vocational education shall include development of these skills.

Learning to retrieve and manage information requires a very systematic approach to teaching and hands-on training in a suitable learning environment. The Finnish vocational education

has systematically developed library and information services for many years. These projects include computer-based training and network pedagogics. Information and communications technologies are part of everyday activities at educational institutions.

Lifelong learning skills can be developed through teaching methods. Student-centred teaching methods that support students' own responsibility promote students' ability to obtain and critically select information needed in the field as well as using the retrieved information in learning tasks and in professional development. The objective of the development of vocational education is to change the focus from teacher-oriented learning culture to a learning environment that provides students with challenges, tools, guidance and support.

From the viewpoint of lifelong learning, learning to plan one's studies is a significant learning objective. Core curriculum and guidelines for qualifications are designed to enable students to make individual choices in vocational, general and interest-oriented studies. Learning is not about passive adjustment, but about actively creating processes. This requires institutions to provide distinct and sufficient guidance and support services for students. Personal study plans are the current focus area.

On-the-job training is part of vocational education in Finland. On-the-job training includes learning tasks, working unit development tasks, keeping a learning log or portfolio, which promote lifelong learning skills and raise students' self-esteem and professional identity when successfully implemented.

Professional development, development of working processes and rapidly changing demands by working life all require self-assessment and learning skills as well as the desire to constantly learn more in the spirit of lifelong learning. In vocational education, assessments need to support students' development of a positive self-image and professional growth. Vocational learning is assessed by qualitative methods. Assessment is based on students' self-appraisal and appraisal discussions between student and teacher and, during on-the-job training periods, the instructor from the working place as well.

1.7.2. Personal study plans

1.7.2.1. Objectives

Personal study plans (HOPS) are drawn up for all students based on the core curriculum and student's choices. A personal study plan is the student's development plan that is based on the student's individual needs and it thus supports the student's career planning and self-assessment. The personal study plan is based on the student's individual needs: the student participates in planning his or her studies, makes individual choices, plans the progress of his or her studies and participates in assessing the learning results. The student and the teacher(s) cooperate in drawing up the plan based on the core curriculum and the student's objectives. The plan commits and motivates the student by taking into account his or her background and

objectives. Drawing up a personal study plan can thus be seen as being a versatile problem-solving process based on many-sided student-teacher interaction.

Personal study plans define learning objectives, progress of studies, how to achieve the objectives and schedule the studies as well as the evaluation methods. The plan takes into account and credit is given to competences specified in the core curriculum, for example, earlier studies and work experience. Personal study plans also include an on-the-job training plan that defines objectives for the individual on-the-job training periods, learning tasks included, their duration and schedules as well as student assessment procedures. The realisation of the objectives set in the personal study plan is monitored during studies.

In special education, each student is always assigned an individual curriculum for the qualification or part of it.

It is essential that sufficient guidance and support be provided when drawing up a personal study plan. The process of drawing up a personal study plan is also a learning process that supports the development and improvement of the student's self-steering ability. Personal guidance promotes the student's learning skills.

Students can select 24 credits of optional studies and complete the qualification in the way best suited to them. Additionally, students who want to improve their eligibility for further studies by taking general upper secondary school courses can select a total of 40 credits worth of these studies. Education providers can agree on the principles and financial conditions for optional studies.

1.7.2.2. Problems

Teachers should be encouraged to see the significance that the choices have for students and for their future lives.

If we look at the extent, to which the plans are based on students' genuine, personal participation and consciously planned development and career plans, there are certainly areas that need development. The opportunity to select and customise one's learning plan requires access to sufficient information on the significance and opportunities of the different choices. Choices can be based on availability or they can be made at random. At a young age, important selection criteria can include, for example, course availability or the location of the institution.

To some extent, students are encouraged to choose those studies, which teachers consider to be the best, but which do not have the desired effect for motivation. These choices often promote professional skills as such, but they do not have the desired effect on the development of the student's personality, ability to learn to learn, motivation and lifelong learning.

In addition, providing choice needs to solve, among other things, how to organise teaching, how to motivate students to move between institutions and how to ensure sufficient educational guidance in order for students to commit themselves to their choices, such that students understand what they have chosen and why. Provision of on-the-job training that serves career planning and talents is problematic in many institutions. Modular teaching would provide an excellent solution to these problems, but it is by no means the only solution.

As drawing up a personal study plan is not understood to be a process that lasts throughout the entire education, division of work between teachers is also problematic. For instance, there is no decision on who is responsible for drawing up the personal study plan in cooperation with the student, what methods should be used, how the methods should be developed, or where to get the resources.

Personal study plan processes lead to questions about the confidentiality of student data. It is necessary to have guidelines on what to ask students and how this information will be used, stored and updated. It is important that the atmosphere at the institution is such that the student feels comfortable to volunteer information on such personal issues that help teachers when planning the studies together with the student.

1.7.3. Modular teaching

1.7.3.1. Objectives

The structure of the curriculum depends on whether teaching is organised in periods and subjects, it is modular and it is tied to fixed yearly cycles. Period education and the fact that teaching is non-graded are pedagogic tools for educational institutions. They enable individual choices and the creation of personal study plans (HOPS). The curriculum needs to allow for modularisation to enable use of these tools for drawing up personal study plans.

Modularisation makes it possible for students to study at other institutions even if they are so far away that it is not possible to get to the other institution between classes. It also helps to overcome problems caused by long distances between institutions, because students can take courses worth several credits at other vocational institutions.

The following issues, where possible, need to be taken into account when structuring the modules:

(a) there needs to be more than one possible initial module. For example, one group of students can start electrical engineering studies by studying the electronics module and another group can start with telecommunications technology. If there is only one group starting their studies at any one time, the above initial modules should be offered in sequence, so that students entering the institution during the second period (for instance, students from other institutions) can take initial courses. When there are several initial

modules, students from other institutions will have better access to the studies available at the institution;

(b) optional studies need to have modules of their own so that students from various study lines and institutions will be able to attend these modules or general upper secondary school courses;

(c) general studies common to all students need to have their own modules. As a result, students can select whether they want to complete their studies at their own institution or whether to attend general upper secondary school studies during the period;

(d) the order in which the modules may be taken needs to be specified. The more possible tracks the curriculum provides, the less obstacles there are preventing the progress of studies and the more flexible the institution is for each individual. Naturally, this may not be done at the expense of learning.

The modules should be placed in the institution's annual programme so that initial modules will begin at different times.

When study modules are built and placed on the year chart as described above, teaching provided by the institution will also be available to students from other lines of study and other institutions during many periods. Another benefit of this kind of organisation of studies is that when there are open student places, students from other institutions (and also students taking apprenticeship training) can attend the same instruction as the students of the institution. Adult students can also select one or more fully vocational periods.

1.7.3.2. Evaluation

The last time that curricula were extensively reformed was in 1995. As early as in 1996, a follow-up study was conducted to see how the principles of the reform were carried out at educational institutions. The survey was aimed at students, teachers and principals.

The objective of the reform had been to increase flexibility and freedom of choice as well as making it possible for students to be accredited for previous studies. The results showed that, overall, flexibility and freedom of choice had increased at educational institutions, although there was plenty of variation between the different lines of study.

According to principals and teachers, freedom of choice was the most successfully implemented principle of the curriculum reform. Results showed that students chose optional subjects from their own educational institution and line of study. Although students had the opportunity to choose studies from other institutions as well, 50% of students were not sure whether they would take this opportunity. Students thought that they still did not have enough opportunity to influence their own learning programmes. Yet, students saw that they had good opportunities to take general upper secondary school courses and achieve extensive vocational qualifications, but they felt that they needed more educational guidance.

The most prominent obstacle for modularisation is educational institutions' views on the progress order of studies. The order in which studies need to be taken can be defined so strictly that it is nearly impossible for students to have any choice or to be able to proceed flexibly.

The lack of permanent groups and possibly also the lack of counsellors is also a problem for some students. Particularly at the beginning of studies, when lifelong learning skills are not yet developed, it may prevent successful studying and even be a reason to drop out.

1.8. Work-based learning

1.8.1. Arranging on-the-job training in upper secondary vocational education

1.8.1.1. Realisation of on-the-job training

On-the-job training provides a basis for lifelong learning, because it demonstrates in practical terms, how work and studies can be integrated. Further, it brings the concept of learning organisations into workplaces and provides a model for career development at the workplace.

The objective of on-the-job training is to give a clear picture of working life to young people who are studying for initial vocational qualifications and to coach students to take up employment that requires professional skills. In on-the-job training, part of the institutional learning takes place at workplaces. On-the-job training at workplaces is a form of study where the institution has responsibility and which includes objectives, instruction and assessment.

On-the-job training:

(a) improves the attractiveness of vocational education;
(b) brings institutions and workplaces closer together;
(c) keeps vocational education contents, teachers and students up-to-date with the changing requirements of working life.

Education providers bear responsibility for the quality and safety of the learning environment during on-the-job training because, according to the Decree on vocational upper secondary education (811/1998), the provider and the workplace have to make a written agreement on the on-the-job training period. Only workplaces with sufficient production or service capacity and a sufficient number of skilled employees to guide students can be approved as on-the-job training partners. Furthermore, the workplace is responsible for the industrial safety of the trainee. The educational institution and the workplace jointly plan, carry out and assess the student's progress during training periods.

All three-year-long (120 credits) initial vocational qualifications include a minimum of half a year (20 credits) of on-the-job training taken as one or more on-the-job training periods.

Normally, on-the-job training is divided into several periods connected to the overall progress of the student. The periodic system increases motivation and optimises the need for guidance and orientation. The student usually participates in an orientation period during the first study year, and in the following two years there are eight credit on-the-job training periods each year.

During these on-the-job training periods, students are eligible for student social benefits, because they are regarded to be studying at their institutions. On-the-job training can also be taken during employment, but that is not common.

On-the-job training leads to exceptional costs for the education provider and the workplace. As a rule, separate training allowances are not paid, because the aim is that the student's input at least in the final stages of on-the-job training compensates for the costs related to guidance and counselling. Training providers get the same State contributions for students in on-the-job training as for students at institutions.

1.8.1.2. The future of on-the-job learning

In a four-year period between 2000 and 2004, 12 000 teachers will be trained in the skills required to facilitate on-the-job learning. At workplaces, 20 000 on-the-job instructors will be trained. On-the-job learning is further advanced by development and pilot projects, some of which are ESF projects.

In the year 2000, approximately 10 000 students took on-the-job learning periods. Over the next few years, the number will increase to approximately 40 000. In general, on-the-job-training has been received favourably, because it is seen as being a good way of bringing vocational education and working life closer together. The most significant social partners have been supporting the system since its introduction.

The readiness of small and medium-sized enterprises (SMEs) to participate in arranging on-the-job training is and will continue to be a critical point for the on-the-job training system.

1.8.2. The development, prospects and limits of apprenticeship training

1.8.2.1. Legislation

New educational legislation came into force on 1 January 1999. Provisions related to apprenticeship training are included in the Act (630/1998) and Decree (811/1998) on vocational education. Provisions related to additional vocational education are included in the Act (631/1998) and Decree (812/1998) on vocational adult education. Financing is regulated by the Act (635/1998) and Decree (806/1998) on the financing of education and culture.

Apprenticeship training is equally a way of organising education and a means of achieving professional expertise and qualification. An apprenticeship contract is a written fixed-term employment contract between the trainee and the employer.

Apprenticeship training consists of practical studies connected to the actual job, supplemented by theoretical studies. The share of on-the-job and in-house training is about 70 to 80% of total study time. Guidelines for competence-based qualifications or core curricula, validated by the National Board of Education, form the basis of apprenticeship training. Individual learning programmes are tailored to suit all apprentices. Previous studies and work experience are taken into account when planning individual learning programmes.

1.8.2.2. Implementation and control

Apprenticeship training is organised both in the form of basic vocational youth or adult education or additional vocational training. Apprenticeship contracts can be used in order to achieve initial, further and specialist vocational qualifications. Further, apprenticeship training may be organised as further training without any qualification aims. Apprenticeship training always includes a competence-based qualification test.

Initial vocational education organised as apprenticeship training has not been quantitatively regulated, nor are there any restrictions concerning the number of students that can be approved for initial vocational education.

Education providers may organise the administration and supervision of apprenticeship training in the way they prefer. Education providers also arrange theoretical training. There are about 80 apprenticeship training providers, and most of these are municipal bodies. In practical terms, apprenticeship training is administered by an apprenticeship centre, apprenticeship office or other educational institution in the field according to a signed cooperation agreement.

1.8.2.3. Number of students

The number of students in apprenticeship training has increased significantly in recent years. However, much of the increase in apprenticeships is due to additional vocational training in the form of apprenticeships, where participants are usually adults, whereas the increase in initial apprenticeship training for young people has not been as strong.

It has been particularly difficult to find apprenticeship places for young people under 20 years of age. In 1999, the number of apprentices was about 27 000, and the share of over 25-year-olds has been about two-thirds in recent years.

The aim for 2000 was to have 28 000 apprenticeship contracts, of which the maximum number of apprentices in additional vocational training is to be 14 000. According to State budget proposals, the number of annual apprenticeship contracts in 2001 is still 28 000, of which the maximum number of apprentices in additional vocational training is 16 000 (mostly

adults). In addition to the aforementioned State-financed training, the European Social Fund finances apprenticeship training.

Support from the ESF has promoted the growth of apprenticeship training in Finland. ESF support has been directed at training young apprentices under 25 years of age. The ESF has also funded the on-the-job instructor training project, which started in 1996 and was completed in the year 2000. About 6 000 on-the-job instructors were trained by the end of the training project.

Apprenticeship training should be used more effectively in SMEs. Finland is home to over 200 000 companies, and in 90% of these there are less than 10 employees. The number of apprentices in these small companies, however, is less than 20%.

1.8.2.4. Development objectives and prospects

Development of contacts between education and working life has been emphasised in recent educational policy. The importance of apprenticeship training in the Finnish vocational education system has increased in the 1990s.

In the new Structural Funds programming period, apprenticeship that aims for a qualification will be supported as a means of personnel development. The aim is to provide holistic development opportunities for staff of SMEs.

Further aims include the promotion of international apprentice exchanges and foreign practical training periods, which has not been common in Finland to date. Pilot projects have been established to increase the number of international experiences and Finland is also involved as a partner country in Leonardo projects. The Europass concept is used to certify training or education in other EU countries and was adopted at the beginning of 2000.

Legislative reform has enabled the participation of entrepreneurs in apprenticeship training that aims for any initial, further or specialist vocational qualification since the beginning of 1999. State funding and social benefits are almost the same as for other apprentices. The inclusion of entrepreneurs will bring about further development and extension of apprenticeship training.

Apprenticeship training is clearly upper secondary education. There have been discussions on whether apprenticeship training could also lead to polytechnic degrees. Representatives of employers, in particular, have led to the need for obtaining polytechnic degrees through apprenticeship training. Employees with a vocational qualification and work experience are especially interested in obtaining post-secondary degrees through apprenticeship training, in order to move on in their careers.

One of the most important tasks in terms of apprenticeship training is to improve the quality. The competence-based qualification system already functions as a quality control tool, but it is not enough. The Ministry of Education and the National Board of Education have launched

a quality project of vocational education and apprenticeship training and, in connection with this project, recommendations for quality criteria in apprenticeship training were drafted in the autumn of 2000.

During the past three decades, the situation in Finland has been such that demand for apprenticeship training has exceeded supply. Strong cooperation and commitment are required from different partners, if objectives are to be met. The whole idea of learning at work has to be developed in Finland.

1.9. Adult education

1.9.1. Introduction

Throughout 1990s, adult education has emerged as an increasingly important component in national educational policy and planning. The 1980s were a period of rapid development in adult vocational education. As a result of the structural change in industry and the labour market, lifelong learning has become an important principle underpinning education policy.

Adult education and training is available in over 1 000 institutions. Some of them provide education and training only for mature students, but the majority cater for both young people and adults. Adult education is arranged by universities and polytechnics, public and private vocational institutions, adult education centres and summer universities, adult upper secondary schools, study centres, sports institutes and music institutes.

Most adult learning takes place outside actual educational institutions, provided by the employer at the workplace or in the form of in-service training. One special form of adult education is labour market training, which mainly comprises job-specific courses purchased by the labour authorities from education and training providers for the unemployed and persons threatened by unemployment.

There is a wide range of institution-based adult education. Adults can choose between programmes leading to qualifications, open instruction of curricular subjects (e.g. Open University) and training for competence-based qualifications. Continuing training geared to upgrade and update vocational or professional skills is an important part of adult education and training. As a rule, adult education has close links with working life and the labour market, but does not necessarily always relate to jobs and qualifications. There is a wide range of social studies and civic education available for mature students, who often also pursue studies merely for their personal gratification and self-enhancement. In Finland, educational establishments provide adult education and training to about 1 million students each year, amounting to some 10 million classroom hours. Just like young people's education, adult education leading to qualifications is free in Finland. For other provision, mature students mostly pay either a subsidised fee or the market price. The Ministry of Education

allocates some FIM 3.5 billion (EUR 583 million) of budgetary funds to adult education and training.

Most mature students work full-time. Accordingly, the aim of teaching arrangements is to make full use of the development opportunities inherent in open and distance learning. Face-to-face teaching is generally scheduled for evenings or weekends or as intensive modules alternating with work. Thanks to new educational technologies, study opportunities independent of time and place are available to all. One of the aims in the national information society strategy is to ensure equal access to information and communications technology for study purposes. This entails computer training and high-standard educational contents, as well as equitable access to computer terminals, internet hosts and other facilities.

1.9.2. Adult education survey

Every five years, a household survey is carried out in Finland, which measures the educational activity of the adult population and their views on the training they have taken part in during the preceding 12 months. The latest available results are from the 1995 survey (a similar survey was carried out in the spring of 2000, but the results are not available yet). The sample from the 1995 adult education survey included 5 005 people aged 18 to 64, with a total of 4 107 interviews carried out in the autumn.

According to the adult education survey, almost half (48%) of Finland's 1 600 000 working age population took part in adult education during the preceding 12 months. Women were clearly more active than men. The age group of 30 to 54 was the most active, whereas activity of older age groups has been growing fastest during the past 15 years. Learning seems to induce learning: those with more training are also more likely to seek and receive education. There is a clear trend that those who take part in formal education are also more active in the area of non-formal education.

About 43% of the labour force took part in work-related training courses and 52% of wage earners participated in employer-sponsored courses. Employed people participate more, but a sizeable minority of unemployed people also take courses. Large firms are more likely to provide training for their workforce than small firms. Employees in firms with 500 or more employees participated in employer-sponsored training almost twice as much as those employed in companies with a staff of less than 50.

According to the adult education survey, the greatest obstacle to employer-sponsored training is the lack of time. Of wage-earners, 59% mentioned this as the greatest obstacle (see Table 1). The high level of education seems to correlate with the critical assessment of the quality and usefulness of further training.

Table 1: Obstacles to participation in employer-sponsored training by highest level of educational attainment

(%)

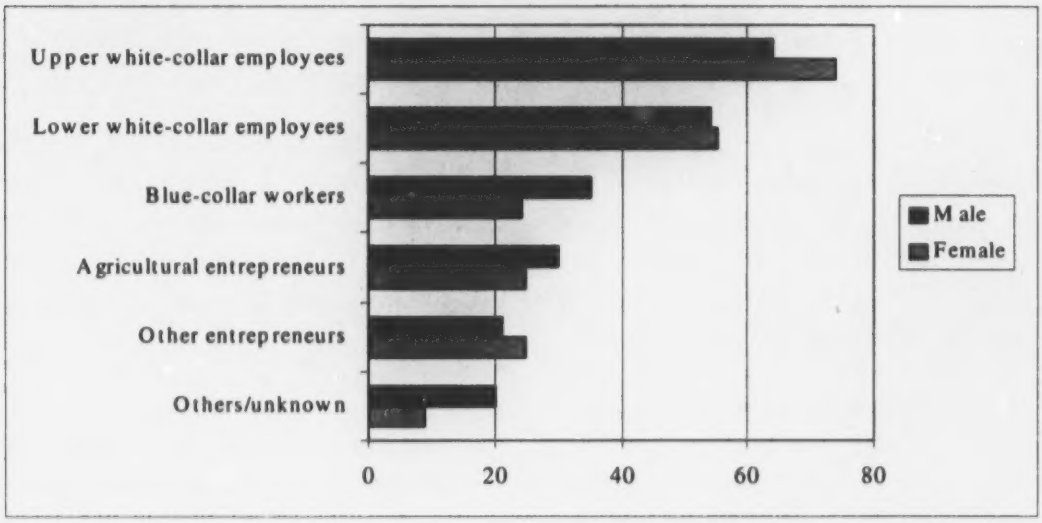
	Primary or lower secondary	Upper secondary	Tertiary	Average
Time pressure in the workplace	45	58	72	59
Employer does not offer training	45	44	38	42
Lack of suitable training	38	43	43	42
Difficulties in getting into training	34	41	41	39
Employer does not appreciate training	22	24	22	23
Lack of information on opportunities	20	26	19	23
No benefit from training	14	17	26	19
Poor quality of training	8	18	27	18
Lack of interest	15	13	13	14
Fear of failure	5	5	2	4
Financial difficulties	1	1	3	2
Other obstacles	2	6	6	5

Source: Blomqvist, I.; Niemi, H.; Ruuskanen, T., 1998.

Activity among employed people in job or occupation-related adult education increased in the early 1990s, although activity among the working age population as a whole seems to have decreased. This is largely explained by the deep recession experienced in Finland between 1991 and 1993, which resulted in a high unemployment rate for a long time. The difference between gender groups remained the same between 1990 and 1995. Women were more active.

The highest participation rate by socio-economic group was among upper white-collar employees (see Figure 1). Of upper white-collar employees, 68% participated in training in 1995. Greatest growth in training activity was to be found in the following groups: blue-collar workers (28% → 35%) and agricultural entrepreneurs (12% → 32%). The increased activity of the latter group is mainly explained by the need for training brought about by EU membership.

Figure 1: Participation in job- or occupation-related training by socio-economic group and gender in 1995



In other words, one of the basic aims of lifelong learning, namely to reach the groups that have previously been excluded from adult education, has succeeded relatively well: their share has grown. Still, adult education seems to attract mostly those who are already well educated.

New information technology is the most common subject in adult education. Of employer-sponsored participants in adult education, 26% took part in IT courses. Law, social sciences and management courses were the second most popular, with 24% of all participants taking part in courses related to these subjects.

Figure 2: The second international adult literacy survey

Finland participated in the second international adult literacy survey (SIALS) 1997–2000. The research material dates from the spring of 1998. The survey was based on sampling of the basic population of 16 to 65 year-olds (3 200 000); 2 928 respondents took part.

Of the 20 countries participating in the survey, the literacy of Finns compared well with other Nordic countries. All the Nordic countries were ranked clearly above the international average in all areas of literacy. In the international framework, the Nordic literacy profile stands out as a high-grade and equal profile, because differences between national results of Nordic countries were minimal. Despite good international results, about 500 000 (15%) Finnish adults have serious weaknesses in some areas of literacy.

The SIALS survey confirmed the findings of several earlier adult education studies suggesting that people who participate in adult education usually have better basic education than those who do not. According to the survey, 57% of 16 to 65-year-old adults participate in adult education, women are more active than men and younger people are more active than older people. In terms of the rationale for participation, Finns differ from other nationalities: up to 30% state they were mostly motivated by personal interest and not by work- or occupation-related reasons, as in other countries.

Participation in personnel development training was much more common in large companies than small ones. Compared with wage-earners in other countries, the Finns were the most active participants in personnel development; up to 57% of Finnish wage-earners had participated in employer-sponsored training. However, the average duration of training was below the international average at about 30 hours per wage-earner (see Linnakylä et al., 2000).

1.9.3. Experiences of learning organisations

The expression 'learning organisation' describes the operational mode of an organisation that encourages individuals and teams in continuous learning to improve their work performance. A learning organisation operates close to its customer, reacts quickly to change, learns from others, continuously questions its own operations, allows mistakes to be made and learns from them. True competitiveness is born from an organisation learning faster than its competitors. Organisations differ in where and how they learn: for example, they can learn to better anticipate and exploit changes in their environment or they can learn to make better use of their human capital.

Promotion of lifelong learning in an organisation is dependent on how work-related learning can be promoted. Large companies and public administration are better equipped than SMEs to safeguard the maintenance of vocational and professional skills and work performance. Especially in many SMEs, questions concerning education and training are not everyday issues even at executive level. Based on research findings, companies do not have systematic personnel and work policy plans (Naumanen and Silvennoinen, 1998).

On the other hand, training projects based on learning organisation thinking have been successfully implemented in Finland. Here are three examples: a project called 'Conversion training for the information industry', GRAM project and KEKO project.

Figure 3: Conversion training for the information industry

As we enter the new millennium, there has been explosive growth in demand for expert personnel by companies in the information industry. For Europe as a whole, estimated demand for the year 2002 is for over 600 000 expert personnel; the corresponding figure for Finland varies between 8 000 and 12 000. There has recently been a considerable increase in basic educational provision for the sector, but the effects of this will not become apparent until present students have completed their studies.

The educational and labour authorities have therefore been working together with companies and organisations in the sector to plan a conversion training programme for the information industry to facilitate a rapid response to the sector's current demand for trained expert personnel. The aim of conversion training is to provide a rapid response to the need for experts and skilled personnel in particularly the electrical, electronics, telecommunications and data processing sectors. The introduction of conversion training was decided as part of the information industry programme approved by the Finnish government in 1997. Training began on a wider scale in 1999, prior to which conversion training was carried out primarily through projects part-funded by the ESF. The training is targeted at persons who have completed a degree or other studies in a related field and wish to update their skills or upgrade the level of their previous qualification. Those participating in conversion training directed towards a qualification are, as a rule, provided with a personal curriculum for a period of study lasting approximately two to three years. The lion's share of people taking conversion training already have an engineering degree in a related field and study part-time after work. It is also possible for interested companies to influence the design and content of the training in cooperation with universities and polytechnics providing the courses.

During 1998 and 1999 approximately 1 800 students began the National Board of Education conversion training at universities, and around 600 more at polytechnics. During 1998, a further 440 students took part in an additional vocational adult education diploma programme in business information technology. The conversion training programme has been implemented ahead of schedule.

The labour administration organises conversion training and other courses to improve information society skills tailored to the needs of the unemployed and people facing the imminent threat of unemployment. Entrants to these courses come from a very varied educational background. The need for training is determined by companies and organisations operating in the sector. Employers participate in both the drafting of course curricula and the selection of students. Some of the training actually takes place at the workplace, and in some cases training is implemented in the form of project work in the enterprises involved. The aim is not to produce highly specialised experts, but people with general expertise across a number of fields; there is great demand in the ICT sector at the moment for specifically this type of person. In 1998, approximately 1 250 people participated in information industry training leading to a qualification, while an additional group of approximately 950 took part in training modules forming part of a qualification and tailored to the needs of specific enterprises. The corresponding figures for 1999 were 1 250 and 1 860 (NAP, 2000.)

The above example provides evidence that efforts are being made. Particularly personnel with high-level and low-level qualifications and those with no qualifications are being targeted, but there is still a gap when it comes to the 'average' worker. The following case does, however, address the needs of the 'entire staff'.

Figure 4: Gram - a project for structural change in Finnish graphic and media industry SMEs 1995–99

Background

In 1995, the Finnish graphic industry's labour and employers' associations proposed strengthening the graphic sector's work qualifications.

The GRAM project is cofinanced by the European Social Fund (ESF), Objective 4, and the Ministry of Labour. The participating companies cover 20% of the costs.

The first GRAM project – personnel training and company development – was launched in southern Finland as a pilot with the intention of expanding to the whole country later on.

In the pilot project all the training and assessment methods were developed and proven. These methods are used today in several smaller GRAM projects in Finland.

Objectives

The regional objective is to promote the professional skills of the graphic sector's employees from craftworkers to management level, and consequently to guarantee the competitiveness of an individual in the labour market.

National objectives include:

- developing education policy in the field to promote structural change;
- producing training programmes, methods and learning material;
- making personnel planning an integral part of a company's strategic planning with tailored development procedures;
- developing a follow-up system to measure the impact of the training.

A project for structural change company analyses

Prior to tailoring a training plan to each company, the following analyses are carried out:

(a) training needs of the entire staff;
(b) financial analysis is made on the basis of financial statements to show the financial weaknesses and strengths of the company compared to similar companies;
(c) study of the internal company climate measures the personnel's opinion of their job content, management culture and personnel relations. This study is carried out anonymously;
(d) quality of customer service. The research outlines customers' opinions of the enterprises' service and products. The customers' selection criteria are analysed by comparing the company with its most significant competitor;
(e) productivity measurements at two levels, company and operations. The productivity of a company measures the company's profitability whereas the productivity of operations measures the company's breakthrough potential.

Within GRAM, a strategy day is organised when the results of the analyses and the training plan are integrated into the overall company strategy.

All these analyses are repeated at the end of the project.

Products

GramSim is an economic simulator used for strategic planning in the graphic industry. It enables the company to evaluate its future success on the basis of its own financial parameters and given imaginable alternatives.

The tool kit for personnel planning works through the Internet, and it helps to plan both an individual and company-level training programme. To make this task easier, it is possible to use sets of questions as well as results of the company analysis which can, in turn, be benchmarked with other GRAM companies. Additionally, the tool kit contains information on GRAM training courses, professional diplomas and quality standards.

An index of internet links has been developed for the use of the editorial staff of newspapers and magazines. It uses a www-server and it contains information essential for editorial purposes.

Gram training

Continuing education is offered for the following groups:

- craftworkers, leading to a professional diploma,
- marketing, sales and export personnel,
- journalists,
- different levels of management.

Tailor-made training for companies:

- team work,
- quality systems,
- customer service and sales,
- new media,
- complementary computer skills.

Participating companies

In Finland there are over 100 companies participating in GRAM. With a few exceptions, all the companies are SMEs, and they form a representative sample of the entire field: printing houses, newspapers, binderies, repro houses, publishers and advertising agencies (GRAM 2000).

Cooperation between social partners has been very important for GRAM. It has also had positive influence on the quality of the project.

A comprehensive evaluation of GRAM was carried out in 1999. The results show that the productive and innovative qualifications of employees improved according to both themselves and their employers. Personnel training policies in companies have become more active and supportive of change management; more and more personnel groups are offered the chance to participate in personnel training (Rensujeff and Nyyssölä, 1999).

Figure 5: KEKO - The training of specially trained unemployed in SMEs

'The training of specially trained unemployed in SMEs', better known as KEKO training in Finnish (based on the Finnish words *kehitä* (=develop) and *kouluta* (=train), has been running since 1995. Partly financed by the European Social Fund, the KEKO project started originally in 1993 as a pilot project with national funding. KEKO is an example of an employment project based on public-private partnership.

In the KEKO model, the unemployed expert or person with special qualifications (KEKO trainee) works as a trainee promoting a development project in a host enterprise. During the project, the KEKO trainee receives support from a tutor/consultant as well as additional theoretical training. The aim is not only to increase the professional skills and employment prospects of the highly qualified unemployed but also to support SMEs and promote their development projects. KEKO is characteristically oriented towards engineering, business, and commerce.

From 1995 to 1998, there were 4 743 KEKO trainees in all. The goal of 1 000 KEKO trainees per year was not achieved during the first year, but during following years it was clearly exceeded.

According to the assessment by Rintala and Nyyssölä (1999), results in terms of employment rate have been good: 72% of participants were at work six months after KEKO and 74% one year after KEKO.

Little less than one fifth of participants thought their employment was fully caused by KEKO. Over one third thought that KEKO had some effect on their employment and one quarter did not see any effect of KEKO on their employment. The labour market 'leaks' in KEKO training are on a par with other evaluations of labour market training. Those who received work in KEKO companies thought that KEKO had a rather crucial effect on their employment. Inversely, those who received work in other companies thought their employment was not essentially a result of KEKO.

1.9.4. Liberal adult education

During approximately 100 years of existence, liberal education has been linked with industrial life in various ways depending on the prevailing social situation, although the purpose of liberal education lies elsewhere.

The Finns have traditionally respected wisdom and know-how. Already during the first decades of the existence of liberal adult education institutions, they had a strong influence on national, political and economic developments. During the past few decades, liberal adult education has been very near to the people, meaning that there is a real connection between individual needs and those of institutions. Students have been interested in languages, ICT, physical education, arts and music and these subjects have been taught accordingly. Today about one million Finns study in liberal adult education institutions for personal interest.

The various funding systems for education have encouraged many liberal education institutions to seek assignments in vocational education because of its notably better funding from society than liberal education. Many liberal education institutions operate in 'official'

vocational education in culture, youth and leisure instruction as well as in supplementary vocational education and adult labour market training.

Liberal education only provides qualifications for such vocations where there is no official vocational training. These vocations are often such that their life span is short, or they do not require advanced vocational skills, or the craft or creative vocation does not have institutional education.

The importance of social qualifications in different positions has increased due to changes in working life. These qualifications include multiple communication skills, that is, both literal and oral communication, and also various teamwork and cooperation skills, which have traditionally been embedded in liberal education studies.

1.9.5. Labour market training

Labour market training is financed by the Ministry of Labour and is free of charge for students. It is primarily targeted at unemployed jobseekers and people aged over 20 who have become unemployed.

It aims to provide participants with the vocational skills they need for daily tasks in working life. It is therefore varied and very practical in nature, and often entails practical training at workplaces. It is organised in adult vocational education centres, other vocational institutions and institutions of higher education. It can also be organised by private training providers.

Applications for labour market training are always made through an employment office, and these employment offices select the students. During training, students may be eligible for a vocational training grant or for labour market support comparable to unemployment benefit.

The number of people in labour market training has varied during the past decade depending on the economic situation. For example, in 1990 just before the economic downturn, there were approximately 17 000 people in labour market training. When unemployment figures started to rise dramatically, the number of people in labour market training also rose. In 1995, there were already 33 000. The figure peaked in 1997 (47 000), since when it has clearly come down. In August 2000, it decreased to just 21 000.

The quality of labour market training has raised a lot of discussion. Especially in the mid-1990s, when unemployment was at its highest, labour market training was criticised for being just superfluous training for the unemployed with the sole aim of removing excess people from the labour market and thus artificially decreasing unemployment figures. At the same time, the Ministry of Labour launched an extensive study project evaluating the effectiveness of labour market training (Mikkonen, 1997). Over a period of two years, 1993 to 1995, the project followed the changes in the labour market status of 4 583 people who had participated in labour market training and a control group of 5 197 jobseekers who had not. This independent study showed that labour market training surpasses its reputation to some extent:

during the follow-up period, 32% of those who had attended labour market training had strengthened their labour market status, whereas the same percentage in the control group was only 23%. The results were, however, dependent on the kind of training people had followed: the best results were obtained in initial vocational education and retraining, whereas results were not as good in vocational further and continuing education, special skills and entrepreneurship education. Labour market training had the smallest impact on people who participated in guidance training. The aim of guidance training is not to provide vocational skills but to improve, for example, jobseekers' self-management or to guide them in seeking jobs. The study also admitted that there was room for improvement in the quality of labour market training.

The study mapped the effectiveness of labour market training in the mid-1990s, when the unemployment problem was at its worst in Finland. Compared to that time, both the volume and political significance of labour market training have decreased. With improvement in the employment situation, quality concerns in labour market training have also decreased. However, it is difficult to draw an exact picture of the present training situation, as no comparable and extensive effectiveness study has been carried out during the past few years.

1.9.6. Adult education in higher education

The Finnish higher education system consists of two sectors: universities and polytechnics.

1.9.6.1. Universities

(a) Introduction

There are altogether 20 universities in Finland: 10 multifaculty universities, three universities of technology, three schools of economics and business administration, and four art academies. Geographically, the network covers the whole country. The University of Helsinki is the largest and the Academy of Fine Arts the smallest. University-level education is also provided by the National Defence College, which comes under the Ministry of Defence.

The basic mission of universities is to carry out research and provide education based on it. The underlying principles in university education are freedom of research and university autonomy, which give them extensive latitude for independent decisions. All Finnish universities are State-run, with the government providing some 70% of their funding. Each university and the Ministry of Education conclude a three-year agreement on target outcomes to determine the operational principles. The most important legislation governing universities are the Universities Act and Decree, the Decree on the Higher Education Degree System and field-specific decrees, which lay down, among other things, the responsibility for education in a given discipline, degree titles, and the structure, extent, objectives and content of education.

Universities select their own students, and competition is stiff. All fields apply *numerus clausus*, in which entrance examinations are a key element. Universities offer openings for

about one third of the age group. The annual number of applications is nearly 66 000, and only 23 000 candidates are admitted. The aim is to offer a place at universities and polytechnics to 60–70% of the age group, which will be achieved soon.

The number of university students grew by nearly 40% over the past decade. At present there are 147 000 university students in Finland, of whom 19 000 are postgraduate students. Education is provided in all scientific fields. The largest fields of study are technology, the humanities and natural sciences, and the smallest are fine arts, theatre and dance, and veterinary science.
The degree system was overhauled in the 1990s with a view to international equivalence, larger freedom of choice, and comprehensive degrees allowing flexible combinations of study modules from different fields and establishments. In the new degree system, it is possible to study for a Bachelor's or Master's degree in 20 different fields of study. The Bachelor's degree (120 credits) can be taken in three years and the Master's (160 credits) in five years. Graduates can go on to study for a postgraduate degree, licentiate and doctorate. The annual number of degrees in Finland in 1999 was 16 500, of which 12 000 were Master's degrees and 1 200 doctorates. In addition, the number of Bachelor' s degrees was 2 500 and Licentiate's 800. The average duration of studies is six and a half years.

(b) Adult education at universities

At universities, the principle of lifelong learning is primarily realised as adult education provided by centres for continuing education. Adult education provided by universities has traditionally been divided into three areas: professional continuing education, open university education and labour market training. Adult education provided by universities is mainly professional continuing education for people with university degrees. Continuing education does not lead to university degrees or vocational qualifications. Open university studies are university courses for adults with no educational admission requirements or target requirements. Labour market training at universities can be summarised as follows: professional continuing education or supplementary training for unemployed people with academic degrees or those at risk of unemployment.

Continuing education at universities has increased significantly in recent years. According to a survey by the Higher Education Evaluation Council, adult education at universities has succeeded, among other things, to create a flexible learning environment that serves the needs of various groups. It also provides a link between universities and non-academic groups, business life and public administration. On the other hand, university adult education has been criticised for being too commercial, having reduced requirements and a narrow range of subjects. There is also not very much cooperation between universities and with adult education at polytechnics (adult education at polytechnics has been implemented for a few years).

The number of students in continuing education has increased in recent years. In 1995, the total intake was 109 000 students; by 1999, the number of students had gone up to 134 000. The number of students in open universities, however, has remained on the same level. In

1995, open universities had 75 000 students and 78 000 in 1999. Traditionally, the share of labour market training has been marginal compared to continuing education and open university education.

1.9.6.2. Polytechnics

(a) Introduction

Polytechnics are more practically oriented, training professionals for expert and development posts. There are 29 polytechnics in Finland. Most of them are multidisciplinary, regional institutions, which give particular weight to contacts with business and industry. Polytechnics are developed as part of the national and international higher education community, with special emphasis on their expertise in working life and its development. They also carry out R&D relevant to their teaching and the world of work.

Polytechnics were created gradually over the 1990s. The standard of former higher vocational education was raised and incorporated into multidisciplinary polytechnics. The national polytechnics network was completed by 1 August 2000, since when all polytechnics operate on a permanent basis.

Polytechnics award professionally oriented higher education degrees, which take three and a half or four years. Entry requirements are either an upper secondary school certificate or vocational diploma. At present about 70% of all entrants are matriculated students and 30% vocational graduates. The Ministry of Education confirms the degree programmes. There is no tuition fee for degree studies.

Polytechnic education is provided in the following fields:

(i) natural resources,
(ii) technology and transport,
(iii) administration and business,
(iv) hotel, catering and home economics,
(v) health and social services,
(vi) culture,
(vii) humanities and education.

In 1999, the number of new polytechnic students was over 26 000. The higher education system as a whole offers openings for 66% of the relevant age group. Polytechnics also arrange programmes for mature students.

Finnish polytechnics, which are either municipal or private, are cofinanced by the government and local authorities. The Ministry of Education and each polytechnic conclude a three-year agreement on target outcomes to determine the objectives, intakes, and project and performance-based funding.

The division of labour between universities and polytechnics has been a central topic in discussions. Universities have been concerned about polytechnics' emerging role as research units, although polytechnics should concentrate on development operations. Additionally, universities have opposed the idea which suggests that those with a polytechnic degree should have the opportunity to obtain a Master's degree at the polytechnic. This idea has been justified by the needs of businesses. In general, it seems polytechnics are still seeking their niche in the field of education.

(b) Adult education in polytechnics

Adult education in polytechnics is arranged as education that leads to a polytechnic degree or as specialised studies worth 20 to 40 study credits. In 1999, the total number of adult students aiming at a polytechnic degree was about 17 200. In the same year, 4 700 students took part in specialised studies. Open polytechnic studies have been developed in all polytechnics in recent years.

2. Mechanisms supporting lifelong learning

2.1. Cooperation with working life and competence-based qualifications as part of non-formal learning

2.1.1. Starting points

For the past decade, the development of vocational adult education and training has centred on competence-based qualifications and preparatory training for these. Competence-based qualifications by definition support the principle of lifelong learning and translation of that learning into concrete working processes in cooperation with working life.

Competence-based qualifications provide a framework with clearly defined targets, recognised by working life, for acquiring, extending and deepening vocational competence. The system is flexible, so that citizens can have their competence recognised at suitable times according to their own life situations, and the system covers a wide range from basic skills to high-level know-how.

In developing adult education and training, one constant aim is to individualise instruction. Legislation obliges providers of adult education and training to draw up individual learning programmes for all students preparing for competence-based qualifications. The learning programme includes a personal learning plan and a plan for acquiring and demonstrating competence. An individual learning programme contains both a list of accreditation and correspondence of earlier studies and skills acquired as well as an adult student's dynamic development plan that supports the planning of one's work career and self-assessment. Individual learning programme models and dissemination of good practices are promoted in many adult education and training development projects.

Decisions concerning the introduction of qualification titles and requirements into the qualification structure and approval of examination performances are made by the educational sector and working life together. The most important cooperation forums in this work are the 170 examination committees with more than 1 200 representatives of employees, employers, small business owners and teachers in the sector.

2.1.2. Discussion on results

The Finnish system of competence-based examinations was implemented in the 1990s. The reasons behind developing this system included the need to raise the professional skills of the labour force and to bring education and working life closer together by including working life in the assessment of professional skills.

The implementation of the system has resulted in vocational institutions changing their curricula to meet better the needs of working life. Today, vocational qualification guidelines are at a satisfactory level, but their complicated wording continues to be a problem. In addition, qualification guidelines do not always correspond to the rapidly changing knowledge and skills required in working life.

The competence-based examination system has proved that there are very few people in Finland able to take examinations without the qualifying training. According to statistics collected in 1999, just 434 of the 12 815 people who took the examination did it with work experience as their only background. On the other hand, information on the share of vocational competence acquired in training versus that acquired earlier in working life is not available for individual examinees.

Additionally, institutions mainly concentrate on advertising available training, provision of information about opportunities to take examinations is exceptional, and students have also preferred to concentrate specifically on training.

All in all, development of the competence-based examination system requires more responsibility from employers and closer cooperation between working life and institutions.

2.2. Disadvantaged groups

2.2.1. The unemployed

The Finnish labour policy system was reformed in 1998 and 1999 with the aim of improving the functioning of the labour market and helping jobseekers find work quickly on the open labour market. The reform is promoted by adjustments made in the unemployment benefit system. The individual jobseeking plan introduced in connection with the reform lists both the measures offered by the authorities and the jobseeker's own active measures and number of visits to the employment office. Of unemployed people, 82% have been in contact with an employment office during the past three months.

The monitoring indicators show that, despite massive efforts, the targets of the EU guidelines could not quite be reached in 1999. There was no time to draw up a jobseeking plan within the deadline for about 5% of young people and 6% of unemployed people over 25 who remained unemployed. On becoming long-term unemployed in 1999, about half of young people (6 months) and adults (12 months) were still without a jobseeking plan. The targets were closer to being fulfilled for women than for men.

Due to the increased demand for labour, the employment prospects for short-term unemployed people have improved and the inflow into long-term unemployment has fallen. About 10% of unemployed young people were still unemployed after six months, while about 11% of people over 25 were still unemployed after a year. In contrast, the risk of long-term

unemployment is very high for people over 55: it was over 32% in 1999 for those aged 55 to 59, and nearly 61% for those aged 60 to 64 (see Section 3.2.5.).

The risk of unemployed people becoming long-term unemployed has fallen by over 60% between the depths of the recession in 1994 and 1999. This considerable abatement of the inflow into long-term unemployment has meant a rapid fall in the numbers of long-term unemployed, with long-term unemployment falling three times faster than short-term unemployment in 1999.

In 1999, the main measures were:

- Special measures focused on the prevention of long-term unemployment. For instance, unemployed adults were offered a fresh start before reaching 12 months of unemployment or, more generally, accompanying individual vocational guidance. These measures include also ESF projects. Of the special measures for young people, 87% and 75% for those over 25 were focused before the time-limit for long-term unemployment. Women accounted for 59% of people placed in this way, while young people accounted for 12%, elderly people (over 55) for 4% and people with disabilities for about 7%.

- The volume of labour policy measures was reduced at the same pace as unemployment. The fall in unemployment is due to people finding work on the open labour market.

- The period for filling vacancies advertised at employment offices was shortened (20 days in 1998, 18 days in 1999). Vacancies are increasingly filled with the help of more efficient customer self-service systems, for instance the Internet.

- A number of legislative amendments since 1997 have made temporary employment a more favourable option for jobseekers, while also making the use of fixed-term employment relationships easier, and improving security for those taking up such employment. This is helping the unemployed become integrated into the labour market. To remove incentive traps and disincentive effects, changes have been made to taxation, benefits and fee systems. Taxation of wages and entrepreneurial income has been altered to encourage low-paid and temporary work by increasing the municipal tax allowance in 1997 and 1999. In 1998, improved coordination of income support, housing allowance, unemployment benefits and financial aid to students was introduced. According to a Ministry of Finance report completed at the beginning of 1999, reservation wages have gone down considerably in all types of family.

- Measures have been developed for young people with difficulties in integrating into the labour market; these include workshops, in which 8 000 young people took part.

- To prevent exclusion, cooperation between different actors has been intensified (letters of intent between employment offices and municipalities, local partnerships between different bodies). According to a study on the subject, partnership projects contributed to the creation of nearly 8 000 jobs and 3 500 places in training. Last year, the third sector

(NGOs, cooperatives, etc.) launched 328 major employment projects with support from the government. Nearly 1 500 people a month were also employed in environmental work.

- In 1997, a support system for self-motivated training, called the training guarantee system, was introduced in Finland; this system gives people an opportunity to take vocational training on a training allowance which corresponds to the level of unemployment security. The first stage of the training guarantee (1 August 1997 - 31 July 1998) applied to the long-term unemployed. The second stage began in August 1998, when the system was extended to take in unemployed people with long work and entrepreneurial experience who had been unemployed for at least four months. At the end of the year, the training guarantee was also extended to include professional upgrading or other special degree programmes at universities. In 1999, just over 1 100 people began this kind of training (NAP, 2000).

2.2.2. Easing the transition from school to work

All those leaving comprehensive school have the opportunity to take vocational training or go on to upper secondary school after completing their basic comprehensive education. An estimated 9% do not take this opportunity immediately after comprehensive school. Some of these young people continue their education later, however. According to monitoring of the placement of graduates from educational institutions, about 15% of those who graduate from upper secondary education were still studying one year later. The number of people who had found work was up on the previous year, reaching 55%, while the number on transition to education and training had fallen.

At the beginning of 1999, about 80 to 90% of comprehensive schools, 90 to 95% of upper secondary schools and all vocational institutions were linked to the Internet. During 1996–98, about 54% of teachers received ICT training.

The main measures in 1999 were:

- Work continued towards making a period of practical training a part of all basic vocational training. Of all training that began in 1999, 70% contained such a period. Practical training consists of target-oriented, guided training in real working conditions; the extent of the period is at least 20 credits. Experiments with practical training and training for workplace instructors was implemented within the Objective 3 and Objective 6 programmes, and partly funded by the European Social Fund.
- Innovative workshops were introduced at vocational institutes. These are a way of safeguarding the continuation of studies by students considering dropping out. There are 28 workshops in operation, and 1 088 students have taken part in them, with women accounting for 37%. The workshops have reduced the drop-out rate among participating students and helped them finish their studies. Innovative workshops for young people (about 350 in all, 73 of them with ESF funding) continued to support young people in

danger of exclusion in seeking vocational training, apprenticeship training or work (8 000 young people per year take part in these workshops (NAP, 2000)).

2.2.3. Youth workshops as second chance opportunities

Youth workshop activities provide a route to working life for young people who cannot cope without special measures. Workshops represent a 'second chance' in the Finnish education system. Young people who work at workshops are engaged in a form of assisted employment for a period of six months. In addition to financial remuneration, they receive vocational and social guidance. The first workshops were established during the late 1980s and there are already over 350 workshops currently. Their work is based on project activities and is not tied to any single institution.

In workshops, young people learn about the rules of society, team spirit and regular lifestyle. On the other hand, the workshop period is short and pay is minimal. Additionally, assignments are not always meaningful and once the workshop period is over, life often continues to be somewhat uncertain.

The Finnish education system is institutional by nature and emphasises qualifications, which leaves the alternative workshop method in the margin and renders it secondary. It is unclear to what extent workshops will be needed in the future, as the Ministry of Labour estimated in 1999 that only 250 workshops would be needed instead of the generous 350 workshops today. Additionally, job placements gained from workshops have been few and far between. On the other hand, these young people are often without vocational qualification and they also may have social problems. Therefore, it is not very realistic to expect good employment results (Nyyssölä and Pajala, 1998).

2.2.4. Ethnic minorities

The ethnic minorities in Finland consist of about 6 900 *Sámi* people and some 10 000 *Roma*. These minorities have a firmly established position in Finland. At the end of 1998, there were about 85 000 foreign nationals resident in Finland (42 000 women and 43 000 men), of whom 62 000 were of working age. Foreign workers number 33 000 and account for about 1.5% of the workforce. An average of 29 000 foreign nationals were registered as jobseekers with the employment offices in 1998; 13 700 of these jobseekers were unemployed. Women accounted for about half the jobseekers. The unemployment rate for immigrants was 39% at the end of 1999, with unemployment almost equally distributed between men and women apart from certain specific immigrant groups.

At the beginning of May 1999, legislation on immigrant integration entered into force in Finland, requiring integration plans to be drawn up for unemployed immigrants entitled to this service. Immigrants must take part in drawing up the plan and in the active measures indicated in it to be entitled to income support.

The aim is to reduce unemployment among immigrants by promoting their equality as users of employment office services and by ensuring effective implementation of the legislation in question. Labour discrimination will be prevented by working with labour market organisations to influence employers' attitudes and provide more information on the strengths and resources of immigrants.

- Immigrant integration plans and active labour policy measures will be packaged as products and quality criteria set for them during 1999.
- Immigrants will be guaranteed the opportunity immediately upon arrival to start learning Finnish or Swedish or take part in labour market training to familiarise them with Finnish society. Training models with close connections to working life will also be developed and entrepreneurship among immigrants will be encouraged, for instance in cooperatives.

Improvement in the employment situation generally has also improved immigrants' opportunities of finding work on the open labour market. However, unemployment continues to be high among immigrants with a refugee background (NAP, 2000).

According to a study on the employment situation of foreigners, 83.7% of immigrants regarded high unemployment and tough competition in Finland as the main reasons why it was difficult for them to get a job. More than three quarters of immigrants felt either that their previous work experience in other countries was not valued in Finland or that immigrants' Finnish language skills were limited. Half of the *Roma* and less than 20% of immigrants responded that they had sometimes experienced discrimination from other employees in working life. Employers do not usually treat ethnic minorities badly at work. Ethnic minorities felt that the best party to improve ethnic working conditions was the employer (Jaakkola, 2000).

A dual system has emerged in Finland when it comes to ethnic minorities: there are highly educated westerners who are even invited from abroad to work in Finland, and on the other hand, there are the 'toilers', people with no education and little work experience often coming from third world countries and often with a refugee background. The only common denominator for these groups is that they are foreign (Jaakkola, 2000).

2.2.5. Aged persons

The average retirement age has risen by one year. The official retirement age is generally 65. Long-term unemployed people over 60 are entitled to receive an unemployment pension until they become eligible for a retirement pension. Finland is leaning toward raising the average retirement age. The labour market organisations and the government have agreed on the following measures to encourage ageing workers to stay on at work instead of taking early retirement. The measures below were implemented primarily from the beginning of the year 2000.

The willingness of ageing workers to take early retirement was reduced by cutting the unemployment pension by up to 4%. It was at the same time made easier to obtain an unemployment pension in some cases.

Funding of unemployment and disability pensions was changed to increase employers' responsibility for pension costs, which means it is now more advantageous for employers to keep ageing workers in work or to find them work.

The age limit for individual early retirement pension was raised from 58 to 60.

The age limit for part-time pension was lowered from 58 to 56 by temporary legislation that will remain in force until the end of 2002. The purpose of the part-time pension is to reduce the uptake of early full-time retirement.

- Temporary legislation, according to which pensions of unemployed persons over 55 are not reduced if they accept temporary work at a low wage, was made permanent.

The labour administration is striving to find work for ageing jobseekers on the normal labour market, if necessary with the help of training and rehabilitation measures, or, where this is not successful, through other measures designed to further active pursuit of employment.

A programme for coping at work was launched, covering both physical and psychological aspects, health, organisation of work and maintaining vocational skills. The national programme on ageing workers and the national workplace development programme continued. Trends in working capacity are monitored with the help of the new working capacity barometer.

Labour market organisations and employment pension institutions agreed on the phased introduction of a right for employees to an early rehabilitation plan paid for by the employment pension system. The arrangement will initially cover people aged from 58 to 59, with the aim of expanding entitlement as resources allow to cover all employees by 2002.

A service needs survey of 50 to 58-year-old long-term unemployed people was carried out in 1998 and 1999 throughout Finland. A follow-up study of this project was completed by April 2000.

Action to maintain working capacity has been promoted and working conditions improved on a wide scale (NAP, 2000).

A committee was set up by the Ministry of Labour in 1996 to investigate the employment prospects of aged workers and the impact of employment and social security legislation on older workers. The committee came to the conclusion that Finland should emphasise policies supporting older workers' positions in working life. One of its suggestions concerned the establishment of a national ageing programme as a concrete step towards better employability of ageing workers (Ministry of Labour, 1996). The government decided to implement this idea in February 1997, soon afterwards the annually updated national action plan for

employment was established, and increasing the average retirement age of the population became one of its most important aims.

2.3. Financing of training from the lifelong learning perspective

Education from compulsory to tertiary level is free of charge at both public and private educational institutions, as is adult education aiming at a first qualification. In some cases, tuition fees are charged for adult education.

The State and local authorities cover educational costs. Additionally, from upper secondary education onwards, students may be eligible for a study grant and an allowance to help with accommodation costs.

Adult education and training and its financing are covered by several different systems. Many employers and education and training participants also cover some of the education and training costs.

The system of vocational qualifications for adults has developed during the 1990s into an extensive system of additional education and training for adults. Despite this, no direct connection from upper secondary education to adult education and training has been systematically developed, except for some branches of the public sector.

The structural, institutional and financial basis of the Finnish educational system and adult education and training is varied and strong, and it provides a good basis for developing opportunities for lifelong learning.

Adult education and training can be categorised according to its aims into (a) self-motivated education and training; (b) labour market training; and (c) personnel training. On the other hand, when looking at the contents, adult education and training can be categorised into (a) general, and (b) vocational education and training. It can sometimes be difficult to draw strict lines between categories.

2.3.1. Self-motivated education and training

2.3.1.1. Training providers

(a) Adult education centres

Operations of the 274 adult education centres in Finland cover the whole country. In 1998, total expenditure of adult education centres amounted to FIM 760 million (EUR 130 million). The State contribution was FIM 400 million (EUR 66.7 million), the sum covered by course fees was FIM 220 million (EUR 36.7 million), and the rest came from the municipalities.

(b) Folk high schools

There are 91 folk high schools in Finland. They are mainly private. They also provide vocational education in certain sectors. In 1998, total expenditure of folk high schools amounted to FIM 550 million (EUR 90 million). The State contribution was FIM 370 million (EUR 61.7 million), and FIM 180 million (EUR 30 million) came from student fees and other income.

(c) General upper secondary schools for adults

In 1998, general upper secondary schools for adults had 24 000 students at general upper secondary level and about 3 000 students at basic education level. General upper secondary schools for adults receive State contributions as part of the general State contribution system for the educational sector in municipalities. The share of State financing is 57% and the share paid by municipalities is 43%.

(d) Other general adult education and training providers

Other general adult education and training providers include study centres and cultural organisations, physical education centres and summer universities. They receive funding from the State and collect varying levels of fees from students.

(e) Adults in vocational education

The estimated figure of adult students in polytechnics is about 11 500 and in upper secondary vocational education about 17 000. These people are studying to complete normal initial educational qualifications. Education is free of charge for them, as financing for this kind of education is defined according to the same principles as education for young people. Based on average costs, the total costs of such vocational basic education amount to FIM 950 million (EUR 160 million). The State share of financing is FIM 540 million (EUR 90 million) and the share from the municipal sector is FIM 410 million (EUR 70 million).

(f) Additional vocational training

Additional vocational training is organised by vocational institutions providing basic education, polytechnics and universities. There are also educational institutions specialised in adult education and training, the biggest of which are vocational adult education and training centres (45) and specialised vocational institutions (50) that receive 10 to 30% of their operating costs from the Ministry of Education as operating appropriations. In 1998, vocational adult education and training centres received about FIM 200 million (EUR 30 million) in State operating appropriations, whereas specialised vocational institutions received about FIM 70 million (EUR 10 million).

The Ministry of Education distributes appropriations for additional vocational education and training to provincial State offices (5) that then purchase additional education and training from education and training providers. When looking at these purchases, the market share of vocational adult education and training centres is 50%, that of vocational institutions 20% and

that of other educational institutions 30%. The financing system is being revised so that, instead of provincial State offices, the quota and financing for additional vocational education and training will be distributed directly to education and training providers. The financing of apprenticeship training already follows a model in which the Ministry of Education gives out quotas and financing for additional education and training to education and training providers.

Additional vocational education and training organised by public educational institutions also receives private financing in several ways. The provincial State offices' appropriations for purchasing additional education and training have been complemented by the financing share of businesses, 7%, and the share paid by adult students themselves, 14%.

2.3.1.2. Aid systems

Aid systems for education and training are covered by legislation. These play a significant role in the promotion of lifelong learning and motivation of individuals to participate in learning activities which enhance their professional and personal development. Collective agreements between employee and employer organisations do not usually contain clauses on education and training opportunities for employees. Exceptions are agreements in the municipal sector where teachers have been assigned the right to two days of in-service training per year, for example. Self-motivated education and training may be done alongside work or by taking partial or full leave from work.

(a) Study leave

Employees have the right, respecting certain conditions, to study leave either in the form of one long period or several shorter periods. The maximum duration of study leave is two years over a five-year period. Study leave can be used for education and training under public supervision or practical training in the form of trainee placements in Finland or abroad. When enrolling as a student, a person on job rotation leave may be eligible for the same student grant as young people attending education.

(b) Adult study grant

For the duration of study leave or other non-paid leave, a person may be eligible for an adult study grant based on full study leave months. The minimum adult study grant period is two consecutive months, 6 600 people received adult study grants for an average of 5.7 months during the 1998–99 school year.

The amount of an adult study grant is 25% of a person's established average income at the time before entering studies, but no less than FIM 1 540 (EUR 260) and no more than FIM 2 800 (EUR 470) per month. A person receiving an adult study grant can take a student loan with a State guarantee for a maximum amount of FIM 1 800 (EUR 300) per month.

(c) Vocational training grant

Employed 30 to 60-year-olds may be eligible for vocational training grants. The maximum amount is FIM 1 400 (EUR 230) per month. It is available in addition to adult study grants for those attending long-term vocational training. This grant system is administered on a tripartite principle by the training and severance fund, which receives financing from the unemployment insurance premium funds.

The number of people applying for vocational training grants has decreased in recent years and is now below 10 000. The total costs of the system currently amount to approximately FIM 60 million (EUR 10 million) per year.

(d) Job rotation leave

Job rotation leave is an experiment started in 1996 and is to continue until the end of 2002. Job rotation leave is a leave of absence for 3 to 12 months during which the employee's work relationship remains 'on hold'. The employer must hire an unemployed person for the duration of the job rotation leave.

Job rotation leave is voluntary. Remuneration paid during job rotation leave is 70% of the unemployment allowance the employee would receive if unemployed. It is taxable income. In 1999, about FIM 260 million (EUR 43.3 million) were paid in job rotation leave remuneration. Employers paid 42%, the State 33% and employees 25%.

According to a study carried out by the Services Employers' Confederation on the job rotation leave system, the system has not been exploited as much as expected.

(e) Part-time allowance

Part-time allowances can be granted as remuneration for loss of income for employees who voluntarily change from full-time to part-time work for a fixed period. The condition for this is that the employer hires an unemployed jobseeker for part-time work for the period in question. Part-time allowance is 50% of the difference between full-time and part-time pay, but no more than about FIM 4 300 (EUR 700) per month. One person may be eligible for a maximum of 12 months.

(f) Reforming aid for adult education and training

In September 2000, a new plan for aid for adult education and training was completed. This new aid system is to replace and be more general than earlier ones. This third stage of the training guarantee scheme emphasised that adults active in working life could be eligible for aid in proportion to their income for full-time vocational education or training promoting vocational skills for a total of 1.5 years in one or several periods during their working career. The aim of the aid is to compensate for the loss of income during studies or training and it should have a positive effect on motivating workers to engage in lifelong learning.

This third phase of the training guarantee scheme is a part of adult training reforms agreed by the social partners and the government of 1995-99 as compensation for agreements concerning the unemployment insurance system. The first phase was aimed at the training of long-term unemployed and the second targeted self-motivated learning of the unemployed who already had spent a longer period in working life.

2.3.2. Labour market training

In 1998, the labour administration used FIM 870 million (EUR 140 million) for purchasing labour market training. Businesses participated in the costs of some so-called joint acquisitions. The share of private financing in labour market training is about 5%. Additionally, the European Union has financed training programmes for the unemployed to a significant extent.

Financial benefits for labour market training include vocational training grants and subsistence and accommodation allowances. The level of vocational training grant depends on the person's family situation. The basic part equals the basic unemployment allowance, i.e. FIM 122 (EUR 20) per day. In addition this, members of employee organisations' unemployment funds can get an income-related contribution that amounts to 42% of the difference between daily pay and the basic part. Students who are unemployed but do not meet all the conditions for vocational training grants may be eligible for labour market support. The basic part of this support equals the basic vocational training grant. The aim of the subsistence allowance, FIM 30 (EUR 5) per day, is to compensate for meals and travel expenses. The accommodation allowance is also FIM 30 (EUR 5) per day. In 1998, the Ministry of Labour used about FIM 950 million (EUR 160 million) for vocational training grants and other social benefits for students in labour market training.

2.3.3. Personnel training

The share of personnel training in additional and continuing vocational training (CVT) was about 64% in 1996. About half the total costs of personnel training arise from organising training and the other half covers wages and salaries for the training period. In 1996, about 900 000 people participated in personnel training. At that time, costs of personnel training were estimated to be FIM 4 700 million (EUR 790 million), of which the share of public financing was estimated to be FIM 800 million (EUR 133 million). Thus, wages and salaries used in personnel training total FIM 2 350 million (EUR 395 million). As the strong growth in the national economy has continued, the volume and costs of personnel training have been estimated to have grown by 20% between 1996 and 1998.

Employers both organise personnel training and buy it from public educational institutions and private training providers. There are about 1 000 private training companies in Finland. They are usually small companies relying on the expertise of a few people. Private training companies are not covered by the public financing system and they are not allowed to use

titles of educational qualifications used by the official educational system. The operations of private training companies are governed by consumer protection authorities.

2.3.4. Comments on the financing and aid systems of lifelong learning and their development

2.3.4.1. Multiple support systems distort the educational market

Upper secondary institutions, polytechnics and universities compete for customers in continuing and further education. Generally, customers have to pay for further education regardless of whether they are companies, other organisations or private people. There are also a lot of private education and training companies in the market of commercial educational services.

The public sector support allocated to continuing and further education by the State and to some extent by municipalities is very varied. This variation, that can be seen both from levels of support and grounds for granting it, distorts competition between education and training providers, which can cause problems from the financial point of view. Another problem is the way in which sales of educational services are taxed. For example, according to VAT legislation, educational institutions receiving State support are exempt from VAT, which is by no means always a relief for them, as, in the Finnish taxation system, taxes paid for acquisitions are deductible later. It is difficult to remedy the situation quickly, as economically neutral pricing principles are technically very difficult to define.

2.3.4.2. Education insurance for adults is a significant step towards lifelong learning

The various aid systems for adult education and training described above are complicated and difficult to grasp and they do not offer adults a clear-cut basis for planning their long-term vocational development. According to proposals, the new education insurance is to cover all the following education and training governed by educational legislation: (a) initial vocational qualifications, further vocational qualifications, specialist vocational qualifications, polytechnic and university qualifications, degrees and study modules, as well as continuing and further education and training; (b) corresponding education and training within sectors other than that of the Ministry of Education; (c) basic and general upper secondary school education for adults in cases where the lack of such education forms a barrier to vocational development; and (d) publicly supervised studies abroad corresponding to those described in the (a) and (b).

The education insurance system would increase adults' possibilities to commit themselves not only to studying alongside work but also to periodical full-time studies. Additionally, a general requirement must be that education or training is practically free of charge for the adult student, as the aim of education insurance is to safeguard subsistence during full-time studies.

Although many countries are currently pushing for shared financing, including a contribution from the individual, Finland seems to be aiming at free provision.

2.4. Guidance and counselling

2.4.1. Guidance and counselling services

Guidance activities aim to help and support individuals with questions relating to education and career planning. According to curricula, pupils and students are entitled to sufficient educational counselling at all educational levels. Education and training providers are responsible for the school and educational institution-specific curricula complying to the norms presented in the core curricula even when it comes to educational counselling.

The tasks of the National Board of Education include preparation of core curricula, taking responsibility for the student selection services system and provision of education, educational material and information for the guidance sector in the whole country. According to core curricula, a minimum of 1.5 credits are reserved for educational counselling during a three-year education programme.

In issues relating to student selection, education and training, material provision and information, the educational and labour administration cooperate with different interest groups. Several training sessions for pupil and student counsellors are arranged all over the country every year.

In 1995, Professor Anthony Watts from Cambridge University conducted a study for the OECD on the Finnish guidance system and its operations. Watts paints a generally positive picture of the Finnish guidance system, but he criticises the short time allocated to pupils' and students' personal counselling and the follow-up and guidance of students moving from one educational institution to another or to working life.

Professor Marjatta Lairio from the University of Jyväskylä surveyed the situation of guidance and counselling in Finland from 1997 to 1999 for the Ministry of Education. The reports on her research, published in 1999, describe the general situation in guidance as well as the qualifications and education and training needs of counsellors. Lairio is worried about the decreasing number of qualified counsellors and the availability of personal counselling. There turned out to be alarming differences in the availability of guidance services between schools and educational institutions (Lairio, 1999; Lairio and Puukari, 1999).

Cooperation between general upper secondary schools and vocational institutions widens students' choices and eliminates overlapping. When making selections, students make far-reaching decisions. They have to be able to see how their choices add up and are interrelated and how responsibility increases with more freedom of choice. It is important to offer versatile study opportunities, as, by designing their own educational pathways, students can

make better progress towards their individual goals. Thus, all students should have as wide a choice as possible between courses offered by different educational institutions, though naturally always taking local circumstances into account.

The reform of vocational education and training, i.e. defining three-year educational programmes with on-the-job training leading to initial vocational qualifications, sets new challenges for counselling. As vocational education and training are reformed, concrete information measures are needed to increase awareness. Counsellors and teachers in basic education and general upper secondary schools need more information than they have at present about the new opportunities offered by vocational education. Educational information measures and guidance and counselling cooperation must emphasise a local perspective: due to different educational implementation models between vocational institutions, good cooperation between counsellors at the educational institution nearby is required.

Until quite recently, pupils in basic education have had fairly limited opportunities to acquaint themselves with vocational education. There is often not enough background information for them to select their educational sector once they complete their basic education. Selection of an educational sector with inadequate background information can easily lead to them dropping out. By providing pupils in basic education with sufficient opportunities to learn about vocational education before they make their selections, a significant amount of unsuccessful educational selections could be prevented. Combining course contents from both basic and vocational education on a suitable scale during basic education is one way of introducing vocational education to pupils and making it easier for them to transfer from one educational level to the next.

For a couple of years, there has been determined work in Finland to provide information about vocational education. The Ministry of Education and the National Board of Education have worked together to implement a campaign titled *Ammatin aika* (Vocation time). This has entailed, for example, a survey on the conceptions and expectations that young people have about education, as well as various measures dealing with the dissemination of information on the reform of vocational education and training and the many opportunities provided by it. These measures have been targeted especially at young people and their parents, business life and counsellors.

Since 1996, career and recruitment services have been developed in vocational institutions to make it easier to find employment or to transfer from initial to further and additional vocational education and training. However, the launch of these services in educational institutions has been slow, and lack of available resources is cited as the main reason for this. Projects launched in the autumn of 2000 with ESF support will probably develop career and recruitment services nationally.

2.4.2. Technical services as a precondition for seeking education and training

Upon completion of comprehensive school, all Finnish students have the opportunity to apply for upper secondary schools through the national joint applications procedure, where they can use a computerised national system to apply for vocational or general upper secondary education. There is also a national joint applications procedure for polytechnics. These systems enable young people to be offered suitable and, very often, their preferred field of education. Over 90% of students continue their education directly after completion of compulsory education.

The centralised application system enables extensive data to be gathered on all available education in one information system (OPTI). OPTI is used to maintain up-to-date information on available vocational study lines and supplementary training for adults particularly for the use of employment agencies in Finland. There is also an Internet-based education information service, *Koulutusnetti*, which includes all available education from upper secondary level to university education.

The present basic target group of the *Koulutusnetti* service is formed by guidance professionals in educational institutions and the labour administration. In its entirety, the service may not be very easy to use for those not acquainted with the complicated educational system. A user study with emphasis on usability of the service has been planned, so that information on user needs of wider populations can be gathered. More information is also needed about the extent of use of electronic media when looking for educational information.

Except for the *Koulutusnetti*, Finnish educational Internet services are restricted to only one form of education or one study model. For example, the database on general adult education and training and personnel training AIKO provides information on short courses for adults, the electronic information service of the Open University SUVI provides information about studying at Open University, etc.

From the lifelong learning point of view, there is a need for a service that could collect all available education under one URL. The implementation of this kind of 'study pilot' service started in the year 2000 and is being managed by the Finnish Ministry of Education.

The study pilot service would have pathways to information on educational provision, study support services and online guidance. These pathways are being designed according to different user groups, and all of the separate functions will be set up according to portal thinking. This means that an individual can find the information needed via certain pathways defined on the basis of that individual's life situation.

A central aim of the study pilot is that all citizens should have single-service access to educational information and guidance and counselling concerning the selection of educational fields. Thus, the service would support lifelong learning opportunities to the full. However, structuring the study pilot to make it truly easy for an individual seeking education and

training to find information relevant to that individual's own life situation is a demanding project. Another problem is that not all citizens have easy access to the Internet.

Employment offices offer guidance to the unemployed and job seekers as follows:

(a) career guidance psychologists assist in the drafting of personal career plans and in the definition of personal competences and opportunities;

(b) AVO programme provides means to explore personal interests, wishes and abilities as well as suitable job and training alternatives on an individual basis;

(c) information service of training and profession offers information and guidance about profession and training alternatives, and working life.

2.5. Participants

2.5.1. Social operators and responsible parties in the Finnish education system

2.5.1.1. General

The Finnish parliament decides on the general principles of education policy and legislation. The government, the Ministry of Education and the National Board of Education implement Finnish education policy at national level according to general principles.

The Ministry of Education is the highest authority with specific responsibility for education in Finland. Almost all publicly funded education is subordinate to or supervised by the Ministry of Education. The Ministry of Education is an expert body that develops and analyses learning and teaching in Finland. Finland is divided into six regional provinces and the education and culture departments of the provincial state offices promote possibilities for inhabitants of their provinces to receive versatile basic educational and cultural services by taking individual and working life needs into account.

Municipalities are key participants in Finnish education. Municipal local authorities are obliged to provide basic education for all children of compulsory education age (from 7 to 16 years of age) living within the municipality. Local educational authorities may also provide general upper secondary, vocational, adult and polytechnic education. There is no active inspection system for schools in Finland, instead the steering of the education system is the responsibility of the government and the Ministry of Education. As the actual education providers, municipalities have significant responsibility for the functioning and effectiveness of teaching.

Finnish social partners also participate in shaping the education system and education policy mainly through interest representation by influencing the norms of education and their development. Social partner organisations have representatives on educational committees

and task forces at national, regional and local levels. The most important channels through which social partners and representatives of industry and commerce can participate in planning vocational education at national level are training committees appointed by the Ministry of Education. Training committees operate in connection with the Ministry of Education to advance the connections between education and working life. Thus, they play an important role in determining how lifelong learning is realised in vocational education in Finland.

New partnerships and alliances are also being encouraged, including those involving parents and local communities.

2.5.1.2. Social operators at different levels of education

(a) Basic education

According to the Basic Education Act (628/1998), basic education shall include cooperation between home and school. In practical terms, implementation of this cooperation includes parent-teacher meetings, where parents and teachers can hold joint discussions. Additionally, cooperation between home and school includes information bulletins and parents can also participate in developing the school-specific curriculum and personal study plans. Pupils' guardians may also be represented on school boards.

(b) General upper secondary school

According to the General Upper Secondary Schools Act (629/1998), upper secondary education shall include cooperation with homes. In practical terms, cooperation between homes and general upper secondary schools is implemented by arranging discussion and information meetings for students' parents or other guardians. Students' parents or other guardians can also participate in developing the school curriculum and they may also be represented on general upper secondary school boards.

(c) Initial vocational education

According to the Vocational Education Act (630/1998), it is particularly important that initial vocational education takes the needs of working life into account. The provision of education shall take place in cooperation with businesses and working life. The most important channels, through which social partners and representatives of business life can participate in planning initial vocational education at national level are training committees appointed by the Ministry of Education as well as school boards and consultative committees. In general, the target for vocational institutions is to network with local businesses.

Consultative committees operate within the Ministry of Education and their purpose is to promote interaction between educational institutions and working life. Thus, they play an important role in surveying how lifelong learning is implemented in initial vocational education in Finland. Tasks of consultative committees include:

(i) monitoring the development of education and assessing the development of student numbers from the viewpoint of working life needs and anticipating training needs on different levels and in different fields of education;

(ii) monitoring and anticipating the development of vocational and working skills requirements set by businesses and by working life in general;

(iii) providing field-specific surveys and proposals to develop educational structures and content as necessary;

(iv) monitoring the development of research into education and working life;

(v) preparing proposals and initiatives on developing vocational education.

The tasks of consultative committees include all vocational education after basic education including higher and adult education.

School boards in vocational institutions can, in addition to teaching staff, students and employees of schools, include representatives with sufficient working life experience in the fields taught at the institution.

At local level, vocational institutions may have one or more advisory boards. When the institution has one advisory board, it includes representatives of the institution, teachers working at the institution, representatives of the most important social partners in the field, as well as representatives of other areas of expertise needed in developing the institution. The task of the advisory board is to develop the institution and its connections with local working life. Additionally, the advisory board can review the school curriculum and other matters relevant to the internal development of the institution.

(d) Higher education

During recent years, universities have strengthened their cooperation with working life. According to the Universities Act (645/1997), universities may appoint members of the board from outside the university. Continuing education centres of universities and permanent recruitment and career planning services promote cooperation between universities and working life. Recent developments of research activities at universities emphasise cooperation with companies.

At local level, polytechnics have close contacts with local working life. Cooperation has different forms, but the common goal is to create a permanent link with working life for developing educational content and for taking regional needs into account.

(e) Adult education

Vocational adult education includes a so-called examination committee system. The examination committees are tripartite bodies appointed by the National Board of Education, which manage and guide the organisation of competence-based qualifications, confirm the qualifications and sign certificates of qualification.

In general adult education, there are various ideological organisations as well. They maintain institutions that operate in the spirit of the ideology they represent. On the boards of these institutions, social partners are represented to a different extent as in traditional social partner thinking.

2.5.2. Finnish faith in education and the future as the basis for lifelong learning and study

During the latter half of the 1990s, the National Board of Education conducted surveys in four consecutive years charting the attitudes of Finnish citizens towards education. The strength of the Finnish education system, which receives more or less complete public funding, has been the fact that Finnish citizens have had faith in the education system and in its ability to produce readiness that will improve the opportunities for future generations to succeed in life. In Finnish society, investment in education has been a key investment in the future. Significant cuts in education resources were implemented for the first time during the deep recession of the early 1990s.

Results of the opinion surveys stated that the vast majority of Finns found the quality and level of Finnish education to be internationally high and two thirds could see that educational institutions develop students' ability to be successful at work and in life. The Finnish culture and attitude towards education is such that people feel strongly about the ability of the Finnish education system to give students basic skills to enable them to build their own future and careers. This faith did not fail even during periods of severe unemployment.

However, citizens did not find the education system, and vocational education in particular, to be sufficiently well linked to other developments in society. Only two fifths of Finns felt that education could meet the changing needs of working life well. In Finland, education has been developed as an independent institution with the target of educating the whole nation, and this attitude has been typical of Finnish citizens. It is only during recent decades that people have accepted that educational institutions should be connected with society around them and that the task of educational institutions actually includes preparing citizens to become full members of society.

Long into the 1980s, vocational education was developed to be self-sufficient and working skills were learned at educational institutions. Vocational institutions had the necessary machinery and equipment for this purpose, which meant that keeping the machinery base up-to-date required considerable investment from society. As late as in the 1990s, it became commonly accepted that initial vocational education for young people should take place in close cooperation with employers in the field, so that students can learn their vocational skills in real environments. Citizens' attitudes still show that people see the education system as being a public service, and feel that its' equality and impartiality is at risk from the closer cooperation of private corporations in providing and planning education.

3. Pedagogical solutions and learning environments

3.1. The curriculum system as a supporting structure for learning within vocational education

3.1.1. Basis

In vocational education, the framework curriculum consists of a national qualification-specific core curriculum; a curriculum devised by the local education provider on the basis of the core curriculum, and a personal study plan based on the two aforementioned curricula (Act 630/98 and Decree 811/98 on vocational education).

In vocational education, the framework curriculum conveys the objectives of educational policy and indicates the requirements of nationally uniform vocational expertise and core skills, among others learning to learn and becoming a member of society. The National Board of Education leads the projects that prepare the national core curricula. Participants include representatives of working life ocial partners, educational institutions, principals, teachers and students and the field-specific training committees. Qualification-specific core curricula define the common objectives and core skills as well as qualification- and study programme-specific objectives.

The education provider has to adopt a curriculum based on the core curriculum. For an education provider, the core curriculum is a norm equivalent to an act. The curriculum should be drafted in such a way that it takes into account the needs of local businesses and enables individual choices for students. It is necessary even at local level to include representatives of working life and students, in addition to teachers, when planning the curricula.

The core curriculum emphasises core competences, which are necessary in all sectors. The required skills are:

(a) learning,
(b) problem-solving,
(c) social skills and communication,
(d) cooperation,
(e) ethical and esthetical.

Qualifications are modular, flexible and allow different choices to meet the requirements of local working life and particularly the different needs and future plans of individual students. This makes it possible for students to select their specialisation area and also to plan their careers from the lifelong learning point of view.

In terms of lifelong learning, extensive general qualifications and the opportunity to specialise are both focus areas among the objectives of education and studies. Another of the targets is to ensure that everyone who completes initial qualifications receives general education as the basis for continuous self-development and further studies.

Initial vocational qualifications should provide students with comprehensive vocational basic skills and versatile field-specific expertise. In addition to professional skills, the aim, in youth education in particular, is to develop the student's personality and enable the student to develop into an active and responsible member of society. Comprehensive general vocational education and skills that enable students and future professionals to adapt to society- and work-related changes and remain functional in the midst of changes, are common to all qualifications.

The free-choice studies mentioned in this text have been defined in terms of youth education. The number of free-choice modules available to adults is somewhat lower in vocational education, because adults obtain the studies defined in the core curriculum in competence-based qualifications. They do not have any local free-choice modules. Adults do not have separate comprehensive common study modules; they have been integrated into vocational qualifications. Personal study plans are made for adults as well, taking into account previous studies, work experience and personal career plans.

3.1.2. Practical realisation and conclusions

The framework curriculum and curricula create good preconditions for turning the above-mentioned objectives into reality. However, the situation in educational institutions varies by region and by educational sector. Personal study plans are not designed for all students in all institutions, but the situation is improving. A lot of work has been done to increase freedom of choice. The situation is very good in densely populated areas, where training volumes are large, whereas in sparsely populated areas the supply of a wide variety of options is not always possible, because it would be too expensive to arrange an optional course for only a handful of people.

The aims of general education are achieved well, but, in some institutions, core competences and social skills are given less attention due to concentration on practical vocational skills. In this respect, some institutions have developed their teaching and learning environments to promote the development of learning and problem-solving skills.

3.2. Individual curriculum in special education (HOJKS)

When students attending basic education are transferred to special education, an individual curriculum is drawn up for them to modify the school curriculum to meet students' individual learning needs and to create a basis for the required support services. The individual

curriculum is drawn up jointly by teachers, students and their guardians. If necessary, assistance can be obtained from experts responsible for support arrangements. Teaching can be organised by integrating students completely or partially in their teaching groups, or they can attend a special class.

Support services required for attending studies, such as interpreting and classroom assistant services, student welfare services, special aids and communication methods are taken into account in planning. Other matters that need to be addressed are monitoring, agreeing responsibilities and the principles for student assessment.

An individual curriculum forms the basis of education planning for the student. When the student progresses from pre-primary education to basic education and further on up to upper secondary level, the individual curriculum passes the information from one level to another and includes the basis for educational arrangements at each new level of education.

There have been some problems in implementing personal plans covering the organisation of education. First of all, there is no obligation to put preventive actions in place. Secondly, there are problems in passing information from one level to another. Thirdly, support services, particularly student welfare services, are somewhat lacking in Finland.

3.3. Youth-level pilot projects

A means to increase the desirability of vocational education as opposed to general education has been sought both in Finland and in many other European countries. In connection with these efforts, Finland has started so-called youth-level pilot projects with the aim of finding out how cooperation between different forms of schools and education could promote increases in the standard of post-compulsory education (Act on youth-level education and polytechnic pilot projects, 391/91).

Results from youth-level pilot projects were implemented in 1999 school legislation: all education providers were obligated to cooperate with other education providers in the region, and the curriculum must provide students with individual choices concerning studies, also taking advantage of the instruction offered by other education providers. Students also have the right to be accredited for their previous studies at other institutions when the objectives and key contents of the studies are in line with the curriculum (Act 629/98, Act 630/98). Currently, the only difference between pilot projects and other cooperation is that pilot projects have more freedom of choice.

Results of pilot projects can be divided into two categories: (a) development of networking and cooperation models between educational institutions; (b) effects on student choices (and presumably also on qualifications).

In pilot projects, educational institutions have jointly developed forms of action that, in practical terms, have reduced the boundaries of vocational institutions and general upper

secondary schools. Developing new networking-based models of action has been a common learning process for educational institutions where cooperation has been necessary to find innovative solutions for the availability of studies, rules of procedure, reporting systems for studies, study counselling systems and pedagogic solutions (Numminen et. al., 1999).

On average, a third of students have chosen studies from other educational institutions thus adding versatility, specialisation and range into their studies compared to the traditional approach of taking courses from only one institution. However, differences between projects and institutions are vast and the number of students choosing studies outside their own institution varies from a few percent up to 60 to 80%. Of students with vocational qualifications in 1999, 7% took matriculation examinations and 2% of general upper secondary school students in 1997 took vocational qualifications. These students thus achieved a dual qualification or two qualifications at graduation. (Numminen et. al., 1999.)

Results from pilot projects are positive, but cooperation between general upper secondary schools and vocational institutions is a slow cultural process that will profoundly affect many of the methods of action (Numminen and Blom, 1999). Possibly the most difficult change for schools and teachers is that students will have more say over their studies.

3.4. Lifelong learning and ICT

3.4.1. Technical infrastructure ([1])

One of the most important trends indicating the progress of information technology is the use of digital data, the development of information networks and the extending of the resulting network connections to all levels in society. The introduction of broadband networks allowing rapid data transmission represents potential for new types of service.

There were almost 3 million mobile phones in Finland at the beginning of 1999, their number having increased by some 60 000 a month in 1998. In August 1998, Finland became the first country where the number of mobile phones exceeded 50/100 inhabitants, and in December 1998 the number exceeded that of wired phones. The situation in Finland is also unique internationally in that in most countries wired phones are more numerous than mobile ones.

Finland is the first country to have granted licences for third-generation mobile communications networks, the Council of State having granted four telecommunications companies permits to construct such a network. All the licences issued apply to the whole of the country. These new networks will be available for use at the beginning of the year 2002 at the latest.

([1]) *Source:* Statistics Finland, www.tilastokeskus.fi/tk/yr/tttietoti.html.

Slightly less than one fifth of all households in Finland use the mobile phone as their only telephone. In addition, three out of four reported that they had at least one mobile phone at the beginning of 1999, while the number of wired telephones continues to decrease. Slightly over one fifth of all households had access only to a wired phone and 2% did not have a phone at all.

More than 40% of all households had a micro-computer in spring 1999. The frequency of computer accessories (CD-ROM unit, printer and modem) has increased with that of PCs, although still only a half of all home computers have network connections. Of households, 22% had an Internet connection.

There were some 546 000 Internet connections in Finland in January 1999, 107 per 1 000 inhabitants, as calculated mechanically on the basis of the country code shown in the network address, an approach which nevertheless entails a number of uncertainty factors. Users of the commercial com. network, for example, cannot be located by country, so that the network address of a computer located in Finland does not necessarily have to end with 'fi'. It is similarly impossible to count the number of Internet users on the basis of these data.

Two out of three employees in Finland in autumn 1997 reported using the computer at work, a figure exceeded only in the Netherlands. The use of information technology is slightly more common among women. Every second employee reported using telefax facilities and well over one third e-mail. Mobile phones were used by two out of every five, being the only communication tool used by far more men than women, 57% versus 20%.

If telework is defined as being performed outside the workplace under a separate agreement concluded with the employer and involving the use of information technology to make this possible, almost one employee in 10 did at least some work of this kind in autumn 1997. This implies a rise in the number of teleworkers from 37 000 to 165 000 over the period 1990-97. More than one employee in every three declared an interest in this way of working.

Almost 2.5 million Finns, 63% of those aged 15 to 74, had access to a PC at work, at school or in their home in September 1998. Home use was reported by some 1.6 million and use at work or school by 1.8 million. In addition, slightly less than 100 000 had access to a computer elsewhere, such as in a library. The services provided by public libraries are available to everybody, but only a small number of people make use of their information network services.

Some 1.5 million Finns, 37% of those aged 15 to 74 years, did not have a chance to use a computer or any need for doing so, the figure increasing with age.

Access to the Internet at home was reported by 1.3 million, or 42%, work or school, and more than 900 000 of them were e-mail users. More than half of all Internet users reported using it daily.

3.4.2. Information technology in schools

The ICT situation in Finnish schools in terms of Internet access and number of PCs is quite good. Almost all schools have an Internet connection. In primary schools the student/PC-ratio varies between 11 and 13 and at upper secondary schools between 9 and 10. In vocational schools and polytechnics the situation is considerably better: the ratio varies between 5 and 6.

Table 2: Amount of institutions with an Internet connection (ISDN connection as a minimum) 1995-99

	1995	1996	1997	1998	1999
Number of institutions	250	1 250	3 500	4 500	4 900

Total number of institutions 5 100.

Table 3: Degree of networking according to the level of education in 1999

Primary level	90%
Lower secondary level	90%
General upper secondary schools	95%
Vocational institutions and polytechnics	100%

Table 4: The amount of PCs according to the level of education 1995-99

	1995	1996	1997	1998	1999
Primary level	14 000	20 000	26 000	29 000	31 000
Lower secondary level	10 000	15 000	12 000	14 000	16 000
General upper secondary schools	8 000	10 000	9 000	11 000	12 000
Vocational institutions and polytechnics	22 000	25 000	30 000	32 000	34 000
Total	54 000	70 000	77 000	86 000	93 000

Table 5: Amount of PCs in educational institutions (PC 386 as a minimum) in 1999

	Amount of PCs	PCs/School	Students/PC	Students/PC Goal in 2000
Primary level	31 000	9	12-13	10
Lower secondary level	16 000	26	11-12	8
General upper secondary schools	12 000	26	9-10	6
Vocational institutions and polytechnics	34 000	82	5-6	3-5

Figures are estimates based on the information given by education providers as they have applied funding from the National Board of Education for the acquisition of PC equipment. Almost all municipalities have applied for such funding.

3.4.3. Virtual school

Virtual school offers opportunities for employed persons to study general or vocational upper secondary syllabi and for secondary students to take courses or study modules offered by other educational institutions. Subprojects will be set up to produce courses for the net, for digital radio and for digital television. The National Board of Education administers the programme according to the funding granted by parliament it its annual approval of the national budget.

The network provides schools in sparsely populated areas and for smaller training fields with support and tools for maintaining quality educational services. In fields of great relevance to education policy, subject-specific and thematic development networks will be set up to promote flexibility and improve quality. One aim is to study and develop criteria and principles for virtual learning and to create model learning materials and environments.

The aims of the virtual school project are:

- to develop and implement study opportunities of a high pedagogic quality independent of place and time and based on a varied use of ICT-based distance and contact education;
- to create equal opportunities for students of all ages to study for diplomas and take courses;
- to create development networks which produce and supply educational and advisory services and materials, including international services;
- to identify and solve technical, pedagogical, social and administrative problems relating to the new forms of study and learning;
- to create a forum for the development of teachers', pupils' and students' ICT skills;
- to develop and diversify cooperation between educational institutions and society, notably the world of work;
- to study and develop the principles and practices of relevant pedagogy; and
- to offer opportunities for all educational institutions to participate in the virtual school.

The core of the virtual school is its own user interface. The portal offers study modules, courses and other educational packages relating to different forms of education, as well as learning materials grouped according to curricula. It also disseminates good practices.

The service is composed of national, regional or local development projects undertaken by educational authorities, education and training providers and schools, which develop and produce study modules, support services and learning materials for use through the portal.

These projects also seek solutions to problems in the new form of study and provide new methods for use in schools. A further aim is to look into financing and cooperation models and clarify the principles of teachers' reimbursement. The private sector can join the development work, especially in learning material production.

The project helps schools to develop their activities towards a virtual school. Support to this end includes training events and conferences, as well as the portal services. Schools are supported in hardware and software acquisitions on condition that they undertake strategic planning, build supportive services and develop learning materials.

3.4.4. Virtual university

Finland will have a virtual university by 2004 based on a consortium of several universities, business enterprises and research institutes. It will produce and offer internationally competitive, high-standard educational services. The virtual university will be based on cooperation between universities and other partners, who will expand and diversify their provision and intensify their networking in research.

The virtual university will provide top-level knowledge and know-how and respond to the challenges of globalising competition in the educational market. The cooperation network of research and pedagogic expertise will ensure a rapid transfer of research and R&D findings to education and the world of work. Students can take courses relating to their degree programmes in the virtual university while enrolled in a 'real' university, which will award the degree. Input will be made not only into high-standard open and distance learning but also into the dissemination of knowledge through networks.

The aims are to:

- establish a high-standard, internationally recognised virtual university. The provision of flexible net-based educational services requires networking between universities, research institutes and business enterprises. The virtual university will offer undergraduate, postgraduate, open university and continuing professional education;
- expand and diversify research which supports higher education and the virtual university;
- capitalise on ICT for effective, user-friendly advisory, guidance, learning material, administrative and educational services.

This will be achieved by means of:

- intensified networking between universities;
- diversified provision and top-quality education and research;
- development of relevant pedagogic know-how;
- innovative application of ICT to teaching; and
- an attractive alternative to ordinary higher education.

The virtual university will be established in stages. At the initial stage, the project will be coordinated by a working party appointed by the Ministry of Education. In connection with the negotiations on target outcome in spring 2000, universities committed to launching virtual university projects in 2001-03 will form a consortium. A development unit will be put in place to coordinate the start-up phase in collaboration with the consortium. The aim is to recruit polytechnics, business enterprises and research institutes to the consortium.

3.4.5. Distance general upper secondary school

Advancement of information and communications technology has made distance learning more effective. In addition to traditional correspondence school methods through simple technology, some distance learning projects also use modern technology. Distance general upper secondary school does not require physical attendance, so students can attend studies anywhere.

The objective of the distance general upper secondary school system is to provide primarily adult students with the opportunity to complete general upper secondary school qualifications or single general upper secondary school subjects and taking the matriculation exam during employment.

The National Board of Education offers all adult general upper secondary schools the opportunity to participate in the project to develop distance general upper secondary school. From the year 2000 to the year 2005, approximately 85% of adult general upper secondary schools will participate in the development work. Vocational institutions will also participate. Distance learning will take place through education programmes on TV and radio, which have been produced for distance general upper secondary school, and through web pages that support the distance learner working remotely with his or her textbook.

As far as teachers are concerned, the project is supported by the information strategy for education and research 2000-04. The information strategy sets important objectives for the teaching profession. The first is to create an information strategy for each institution. The aim is that all teacher education units devise a strategy for the educational use of ICT by 2001 and all educational establishments by 2002. Another aim is that by the end of the project over half of the personnel working within education will have the knowledge and skills needed to use ICT for pedagogic purposes and that a large number of teachers have at least basic ICT skills.

The first phase of the project has been very successful. In the first phase, there were about 2 000 students and the first distance learners to take their matriculation exams without a single lesson of contact instruction completed general upper secondary school in 2.5 years. These students went through the whole general upper secondary school in virtual contact through information and communications technology.

The regional activities of distance general upper secondary schools have grown in importance and they are becoming established as one educational track for young people and adults. Day-

time general upper secondary schools are gradually joining distance general upper secondary school networks in regions where there are no general upper secondary schools for adults or where they are located far apart. Implementation of distance education requires the adoption of new attitudes and a customer-oriented, open and flexible educational culture. This is facilitated by network pedagogy, equipment acquisitions and training to use the equipment.

Equipment and usage costs will be among the main factors that will determine the extent to which distance learning will increase educational equality and give access to lifelong learning for all citizens.

Although distance general upper secondary school students have relatively good self-direction skills, assessment methods continue to be traditional and teacher-directed. Additionally, distance general upper secondary school studies are still tied to contact instruction and examination schedules. On the other hand, it is impossible to implement a fully open distance general upper secondary school environment in practical terms, as an extensively distributed education system hinders the possibility to identify study opportunities and to secure student care.

There is significant need for distance education in a sparsely populated country with long distances between population centres. Additionally, distance learning opportunities have been used in the Helsinki metropolitan area and by students abroad. In any case, young people need institutional general upper secondary education to receive social and cultural education, among other things. These aspects of institutional education cannot be replaced by information-focused virtual teaching through information networks.

3.5. Blurring boundaries: cooperation between educational institutions and segments of education

Cooperation between different levels of education has increased in Finland since the 1990s. There is still, however, room for improvement.

Cooperation between basic and vocational education mainly takes the form of guidance and information provision with career counselling and a one-week workplace guidance period in the ninth form as the central elements. Working life contacts are increased by the reformed core curriculum of the additional and voluntary 10th form, according to which pupils can focus on vocational studies more than before. A central problem, however, is that teachers in basic and general upper secondary education do not have enough information about the opportunities provided by vocational training.

Interaction between general upper secondary schools and vocational education has increased. The background is the legislative reform that took effect in 1999 and that obliges education providers to cooperate with other education providers. This was the basis for the so-called youth school experiment in which students had a wide variety of choice in selecting studies

offered by other educational institutions. The youth school experiment also developed networking between educational institutions. The results of the experiment have been positive, although the cultural differences between vocational institutions and general upper secondary schools were found to be quite significant. At the moment there is, however, no certainty of how cooperation between educational institutions left outside the experiment has developed. The results of the youth-level pilot projects (see Section 4.3) will be used when the Ministry of Education defines suggestions for further development of the experiment.

Cooperation between general upper secondary schools and polytechnics, as well as universities, is currently being developed. The aim is to create a system in which general upper secondary school students can, even during their general upper secondary years, complete studies according to higher education requirements.

There is some unofficial cooperation between vocational institutions and polytechnics, as most polytechnics are actually former vocational institutions. However, this cooperation has been deemed likely to decrease unless strengthened by the authorities. There have also been discussions on whether it should be possible to take polytechnic degrees in the form of apprenticeship training. The need for this has emerged especially in working life.

Cooperation between vocational institutions and universities has traditionally been rare. Some years ago, there were some cooperation projects but these have mostly disappeared.

Cooperation between polytechnics and universities has so far been scarce. The background for this is that the polytechnic system has still not yet fully found its place in the Finnish educational field. Questions concerning financing and the level of degrees also hamper cooperation between universities and polytechnics.

Polytechnics have mainly been formed out of former post-secondary institutions. The process of raising the institutions profiles from a post-secondary into a higher level institution is still underway at many polytechnics. One study (Raudaskoski, 2000) looked at polytechnics' operational strategies and underlying values. The study states that polytechnics have not sufficiently thought through what the change from post-secondary level into a higher level institution actually means. Basic concepts that delineate the educational mission and philosophy of polytechnics are still unclear. The same applies to the rationale of polytechnic education and differences between polytechnics, universities and post-secondary education.

Formal and non-formal education and training have approached each other along with the establishment of the competence-based qualification system. However, even competence-based qualifications often entail a preparatory formal education or training period. Additionally, skills and knowledge acquired during leisure time and at home are not usually recognised in formal education. It can generally be said that, since the 1990s, the first steps towards increasing interaction between formal and non-formal education have been taken, but there is still a long way to go.

In Finland, initial vocational education targeted at young people and additional vocational education and training targeted at adults have traditionally been separated. However, the competence-based qualification system is the first big step towards a qualification-based vocational adult education system. In addition, enrolment age limits have been removed during the 1990s, the conclusion of which is that there is a gradual shift towards a holistic education system.

4. Conclusions

During the 1990s, lifelong learning became a central part of educational policy discourse. The background is in the fact that the labour force is ageing. The increasing number of people of retirement age is leading to larger educational differences between generations and higher professional skills and competence requirements have also posed new requirements on educating citizens.

In Finland, there is strong commitment to implementing lifelong learning: in addition to educational administration, other key players in the field of education, such as other administrative fields, interest groups and social partners, play an important role in implementing lifelong learning.

Although lifelong learning contains some education policy 'liturgy', it has genuinely become an integral part of all levels of the education system. In addition to the positive general opinion of education and strong commitment to lifelong learning, the strengthening of its foundation can also be attributed to being linked with the development of the information society and the new learning environments that the information society has brought. Examples include successful distance general upper secondary education and advanced computerised joint applications system and web-based information services. On the other hand, the actual significance of new learning environments for basic and adult education is not completely clear.

Education planning has invested heavily in planning personal study plans, although their implementation still contains some problems. Personal study plans are also a significant tool to prevent exclusion and learning difficulties.

Strong decentralisation has been a general trend since the 1990s: educational institutions have gained more decision-making powers over their curricula and activities. The obligations of education providers, that is, municipalities or federations of municipalities, include the provision of all levels of education (excluding university education). Education planning needs to take regional employment situations and business structures into account. In this sense, the training provider forms a local 'centre of learning', although this term is not actually used.

During recent years, investments have also been made in developing cooperation between educational institutions. Youth-level education pilot projects have lasted almost a decade and have brought vocational education and general upper secondary schools remarkably closer together and the obligation of educational institutions to cooperate is a result of such pilot projects. Cooperation between general upper secondary schools and universities has also increased, but cooperation between comprehensive schools and vocational education continues to be inadequate.

Realisation of lifelong learning contains four structural problems. Firstly, lifelong learning services are not completely equally attainable particularly in sparsely populated areas. Learning results are also inferior in sparsely populated areas, but this is linked to the generally lower level of education in rural areas.

Secondly, Finnish educational institutions and working life continue to be quite far apart, although extensive educational policy reforms have been implemented to bring them closer. Their practical implementation (for example, six-month on-the-job training periods in vocational education, introduction of competence-based examinations and increases in apprenticeship training) still has problems. In vocational education, the emphasis of practical vocational skills at the expense of basic and social skills is also something of a problem. Educational institutions and teachers often have insufficient information about local working life and businesses. In addition, lack of appreciation for vocational education has been a subject of discussion. To a certain extent, it is linked to the objective of having the majority of the relevant age group obtaining higher education degrees. The sensitivity of this objective from the viewpoint of developing vocational education has given rise to a lot of debate.

Thirdly, the full potential of non-formal education is not put to good use. Establishment of the competence-based qualification system has brought formal and non-formal education closer together. On the other hand, competence-based qualifications often include a preparatory period of formal education. In addition, knowledge and skills obtained at home and through extracurricular activities do not receive sufficient accreditation in formal education.

Fourthly, adult education still does not reach all population groups. Generally speaking, it can be said that obstacles have been resolutely cleared away from adult education: annual intakes have been increased, regional availability of education has been improved through network pedagogics (for example, distance general upper secondary school) and support systems for adult education have been developed. In addition, the competence-based qualification system is the first major step towards a qualification-based vocational adult education system. However, adult education continues to appeal to people who already have a good educational background, and who do not necessarily belong to the older working group. On the other hand, it has been suggested that not everyone can be made to participate in training. Individuals also have responsibility for their own lifelong learning.

Since the mid-1990s, vocational education has become increasingly international. A central factor promoting lifelong learning has been the Leonardo da Vinci programme. An extensive valorisation project to evaluate the effectiveness of the Leonardo projects was started in 1999. One of the themes was the effectiveness of the Leonardo programme in the internationalisation of vocational education.

As a summary, it can be said that, from the educational institutions' point of view, the Leonardo projects have resulted in more defined and systematic internationalisation, more funding opportunities and lower threshold of internationalisation. On the practical level, the projects have advanced the development of course contents and teaching methods. On the authority level, the projects have promoted mobility and also enhanced the comparability of

education systems. Additionally, the Leonardo projects have had an influence in further increasing the importance of on-the-job learning in the Finnish education system. The projects have also yielded innovative models of operation (Nyyssölä, 2000).

All in all, the basis of lifelong learning in Finland is in line with the objectives set by the European Union. For example, the European Commission's white paper on education and training *Teaching and Learning - Towards the Learning Society* (1995) emphasises, among other things, the recognition of skills, mobility, bringing education and working life closer together, preventing exclusion and equal education opportunities. These objectives are also the focus of Finnish lifelong learning strategy.

Annex 1: Legal provisions

Asetus ammatillisen koulutuksen yleisistä toimikunnista ja koulutustoimikunnista (945/1997). (Decree on General Training Committees in Vocational Education, in Finnish).

Asetus ammatillisesta koulutuksesta (811/1998) (Decree on Vocational Upper Secondary Education, in Finnish).

Asetus ammatillisesta aikuiskoulutuksesta (812/1998) (Decree on Vocational Adult Education, in Finnish).

Asetus korkeakoulututkintojen järjestelmästä (464/1994) (Decree on the Higher Education Degree System, in Finnish).

Asetus opetus- ja kulttuuritoimen rahoituksesta (806/1998) (Decree on the Financing of Education and Culture, in Finnish).

Laki ammatillisesta aikuiskoulutuksesta (631/1998) (Vocational Adult Education Act, in Finnish).

Laki ammatillisesta koulutuksesta (630/1998)(Vocational Education Act, in Finnish).

Laki ammatillisista oppilaitoksista annetun lain muuttamisesta (605/1992) (Act on Changing the Vocational Institutions Act, in Finnish).

Laki nuorisoasteen koulutuksen ja ammattikorkeakoulujen kokeiluista (391/1991). (Act on Youth level Education and Polytechnic Pilot Projects, in Finnish).

Laki opetus- ja kulttuuritoimen rahoituksesta (635/1998) (Act on the Financing of Education and Culture, in Finnish).

Lukioasetus (810/1998) (Decree on General Upper Secondary Schools, in Finnish).

Lukiolaki (629/1998) (General Upper Secondary Schools Act, in Finnish).

Perusopetuslaki (628/1998) (Basic Education Act, in Finnish).

Yliopistolaki (645/1997)(Universities Act, in Finnish).

Ylioppilastutkintoasetus (1000/1994) (Decree on Matriculation Examinations, in Finnish).

Annex 2: Acronyms, abbreviations, terms

Additional vocational training (Finnish term *ammatillinen lisäkoulutus*): preparatory training leading to further vocational education or a specialist vocational qualification. It may also be some other type of post-initial vocational education needed for working life assignments.

AIKO: database of short-term training courses mainly for adults, created by the Finnish Information Technology Centre, courses found in AIKO are provided by schools, businesses, both public and private education and training centres and governmental bodies. http://www.tieke.fi/tieke/aiko/index.htm .

Competence-based qualification (Finnish term *näyttötutkinto*): a flexible way of taking a qualification designed for adults in particular. Knowledge, skills and experience are demonstrated in officially approved qualifications which consist of skill demonstration tests.

Development plan for education and research (Finnish term: *Koulutuksen ja yliopistoissa harjoitettavan tutkimuksen kehittämissuunnitelma*): every fourth year, the Finnish government adopts a plan for the development of education and university research which provides the basic long-term guidelines for the development of Finnish education. The current plan, covering the years 1999-2004, was approved in December 1999. The concept of lifelong learning is considered one of the main principles for educational development.

Distance general upper secondary school (Finnish term: *etälukio*): upper secondary distance learning is open to all holders of a comprehensive school or comparable school leaving certificate irrespective of their home area. It provides the student with a means of completing the entire upper secondary school syllabus or single courses. Studying is irrespective of the place of residence or the time of day or year. It is aimed at both young people and adults, business people, the employed and unemployed, part-time students as well as students supplementing their general education.

Duoqual: database for 'qualifications with a dual orientation towards employment and higher education'. A Leonardo multiplier-effect project, maintained by the research forum education and society (WIFO) in Berlin, Germany. http://www.b.shuttle.de/wifo/duoqual.htm .

HOJKS (Finnish term: *henkilökohtainen opetuksen järjestämistä koskeva suunnitelma*): an individual curriculum for pupils being transferred to special education to meet better their individual learning needs, drawn up in cooperation with the pupil, their teacher and guardian.

HOPS (Finnish term: *henkilökohtainen opiskelusuunnitelma*): a personal study plan for students drafted by students and their teacher(s) according to students' individual study goals.

ICT: information and communication technologies.

KOTA database: a statistical database maintained by the Ministry of Education containing data describing university performance by institutions and by educational field from 1981 to the present.

Koulutusnetti: a National Board of Education database for current general and vocational upper secondary education and polytechnic and university education provided in Finland for the young and adults. http://www.edu.fi/info/koulutusnetti/ .

NAP (Finnish term: *Suomen työllisyyspolitiikan toimintasuunnitelma*): national action plan for employment, annual strategies based on the government programme of Prime Minister Paavo Lipponen's second administration, NAPs are drawn up annually.

National Board of Education (Finnish term: *Opetushallitus*): the national centre for development and evaluation of Finnish education which has several support functions related to education. The NBE has about 300 experts in different fields and it functions directly under the Ministry of Education.

National core curricula (Finnish term: *opetussuunnitelmien perusteet*): determined for each school subject by the National Board of Education. They include objectives for the subjects and their contents, as well as basic rules for the evaluation of pupils. Based on the national core curricula, the education providers, in most cases municipalities, together with schools draw up their own curricula within this national framework.

National joint application procedure (Finnish term: *Yhteishakujärjestelmä*): a computerised national system for students to apply for any vocational or general upper secondary education institution nationwide. There is also a similar system for polytechnic education.

Opepro (Finnish term: *Opettajien perus- ja täydennyskoulutuksen ennakointihanke*): an extensive two-year anticipatory project to investigate teachers' initial and continuing training needs in Finland, coordinated by the National Board of Education with cofunding from the Finnish Ministry of Education and the European Social Fund.

OPTI (Finnish term: *Opetushallituksen oppilaitostietokanta*): a school database including all institutions providing education leading to official qualifications as well as those providing additional education and training with the exception of universities, annual budget approximately EUR 400 000.

SIALS (Finnish term: *Toinen kansainvälinen aikuisten lukutaitotutkimus*): the second international adult literacy survey, a household survey conducted every five years according to OECD guidelines.

Study pilot (Finnish term: *Opintoluotsi*): an Internet-based education information service for all citizens, it puts together all existing educational information resources into one entity, launched in June 2000, funded by the European Social Fund.

SUVI: (Finnish term: *Avoimen yliopiston valtakunnalliset verkkopalvelut, SUVI-projekti*) database on all open university studies organised in Finland, financed by the Ministry of Education. http://www.avoinyliopisto.fi .

TET (Finnish term: *työelämään tutustumisjakso*): pupils in the ninth year of basic education spend one week in a workplace and get acquainted with aspects of working life.

Training committee (Finnish term: *koulutustoimikunta)*: a tripartite general training committee the members of which represent education administration, teachers, employers and employees. The maximum amount of members in each committee is 14 and there are six general training committees in the fields of natural resources and the environment, technology, traffic, commerce and services, health and social care, and education, culture and physical education.

Youth level (Finnish term: *nuorisoaste*): as a term includes general and vocational upper secondary schools and institutions.

Annex 3: Lifelong learning survey

Joint project of Cedefop and the National Board of Education

Questionnaire

(Answers are free-form. Although the questions are extensive, please try to keep your replies brief.)

1. Realisation of equality in lifelong learning
   (a) What opportunities do different population groups (age groups, employee groups and people living in different areas) have for lifelong learning?
   (b) What are the most significant factors that increase any possible inequality?

2. How are flexibility, individuality, freedom of choice, self-steering and 'new teachership' realised in the school system (teacher's changed role as a student counsellor and planner of learning environments)?

3. Does the education system provide an adequate basis for lifelong learning and, if not, what are the main problem areas?

4. Realisation of on-the-job training in lifelong learning
   (c) What measures have been taken to promote on-the-job training in initial vocational education, apprenticeship training and supplementary training?
   (d) Have the measures been adequate and successful?

5. What measures have been implemented and have they been sufficient and successful in developing cooperation and interaction:
   (e) Between basic education (comprehensive school and general upper secondary school) and vocational education?
   (f) Between initial vocational education and supplementary education?
   (g) Between vocational education and higher education (polytechnics and universities)?
   (h) Between formal and non-formal education?

6. Are there fewer obstacles to adults' participation in higher education or continuing education?

7. What is the status of non-formal education in lifelong learning?

8. What is the role of (a) employers and (b) social partners in lifelong learning?

9. What is the role of new learning environments in education?

10. Are individuals sufficiently aware of the importance of lifelong learning?

11. Are underprivileged groups being excluded from lifelong learning?

Summary of the analysis of the survey

1. The majority of replies stated that all population groups had good opportunities for lifelong learning, but they also pointed out that there were regional differences and that people who participate in education were often those who already have a good education. On the other hand, the replies also emphasised that lifelong learning is ultimately a personal matter and that not everyone is interested in learning.

Those who took a critical stand were of the opinion that different population groups had considerably varied possibilities to participate in lifelong learning. They felt particular concern for older age groups and for regional inequality and employers providing more training for top and middle management than for workers. Teachers were viewed to be a special group and their reduced opportunities for further education was a problem, because teachers are a key group in the realisation of lifelong learning.

The fact that Finland does not have a knowledge base and a guidance system to support adult education was also criticised. Respondents feared that not all population groups would be able to use information technology sufficiently well to exploit its full potential.

2. Drawing up personal study plans still left a lot to be desired. This is due to resourcing problems as well as inadequate continuing teacher education and training opportunities. Increased flexibility and freedom of choice were seen to be positive factors, but the significance of common basic skills was also emphasised. Additionally, respondents worried that the threshold of taking up studies increases when you are not used to studying and vice versa. Thus the willingness to study may increase as a result of increased flexibility and freedom of choice.

The replies could be interpreted to show that the teacher's role had not changed dramatically to date. The teacher's role is changing, but the process is slow and requires support.

3. The formal education system was commonly thought to give a good basis for lifelong learning. Additionally, the replies emphasised that positive changes were taking place all the time. Education today is better able to teach information retrieval, problem-oriented approaches, language and ICT skills.

Critical views were also presented. Firstly, the critical replies expressed concern for elderly people with poor basic skills. Secondly, they criticised the cuts in basic education in the 1990s, which will result, e.g., in approximately 20% of the age group not achieving the basic education objectives in mathematics. Thirdly, the increasing use of information technology

threatens to divide the population into people with IT skills and people without IT skills. Fourthly, they expressed a need for more incentives and motivation.

4. Some of the respondents considered the measures to promote on-the-job training to be sufficient while others thought they were lacking. Particularly the representatives of service professions saw the apprenticeship training quota system, which was taken into use in 1999, as problematic because it restricted the quantity of apprenticeships leading to vocational qualifications. The quota system has been particularly disadvantageous to commerce as well as to the hotel and restaurant business where there is a lot of demand for apprenticeship training.

On-the-job learning is new to working life. Companies need more support and information when on-the-job training is introduced in the company. Additionally, there is a need to train more on-the-job instructors and to develop the training.

5. This question was clearly a difficult one to answer.

The replies mentioned youth-level pilot projects and the reformed core curriculum of the 10th form in basic education. They give students more freedom to focus on vocational education, which was considered to be a good method of improving interaction between basic and vocational education. Youth-level pilot projects were seen as a positive thing, but it was too early to give an opinion of how the system functions on a wider scale.

According to the representative of the training committee of natural resources and environment sector, cooperation between initial vocational institutions and institutions providing additional vocational training has intensified, because the institutions increasingly fall under the same education provider.

As most of the polytechnics are former upper secondary level vocational institutions, there is unofficial cooperation between vocational education institutions and polytechnics. But it is feared that this cooperation will cease, unless educational authorities start to support it.

Many replies mentioned that formal and non-formal education have come closer together specifically through the development of the vocational qualification system.

6. According to the majority of replies, there are fewer obstacles to adults' participation in additional vocational education, but there are still some difficulties. The high cost of self-motivated study and uneven regional distribution of education possibilities were mentioned. One reply questioned the ability of the third phase of the education insurance system to secure the financial means for participating in vocational adult education. Additionally, the representative of the training committee of the social and health sector pointed out that additional vocational education focuses too heavily on vocational qualifications, although there is no significant need for further qualifications in the social and healthcare sector.

7. The replies emphasised the growing importance of non-formal education within the education system. Vocational qualifications were often mentioned as working examples. On

the other hand, the replies were neutral and did not give any views on the current status of non-formal education. However, two responses contained critical views: according to one reply, the possibilities of non-formal education are not fully utilised in Finland, for example, through liberal adult education, and the other pointed out that adults have not been able to pass competence-based examinations without preparatory formal training. The replies also emphasised that although the competence-based qualification system has expanded during recent years its importance continues to be minor.

8. The role of employers and social partners was considered to be highly significant in securing the conditions for lifelong learning.

However, there were different focuses in the replies: representatives of employers emphasised the responsibility of individuals for lifelong learning and the representatives of employees emphasised the importance of employers' positive attitudes towards training.

9. Only four replies to this question were received. Two of the replies just stated very briefly that the importance of new learning environments is on the increase. The other two emphasised that the special characteristics of each sector and their learning objectives need to be taken into account when applying new learning environments.

On the whole, it seems that participants in the educational field currently do not have a clear picture of the true status of new learning environments in the education system.

10. The replies reflected the basic problem of lifelong learning: those who educate themselves are the most interested in education and those who are less interested in learning do not participate in training either. The challenge is to motivate the latter.

11. According to some of the replies, exclusion is taking place. The elderly and the less educated in particular are in danger of being excluded from lifelong learning. The replies mentioned the disadvantages that people with disabilities or impaired work capacity have and emphasised that exclusion occurs as early as during basic education, which gives a poor basis for lifelong learning.

Some of the replies did not consider exclusion to be a major problem from the lifelong learning point of view. All groups include disadvantaged people who need support, but all training still needs to be developed although not everyone would have the chance to participate.

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Cedefop (European Centre for the Development of Vocational Training)

Lifelong learning in Finland: The extent to which vocational education and training policy is nurturing lifelong learning in Finland

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The extent to which vocational education and training policy is nurturing lifelong learning in Finland

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